This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

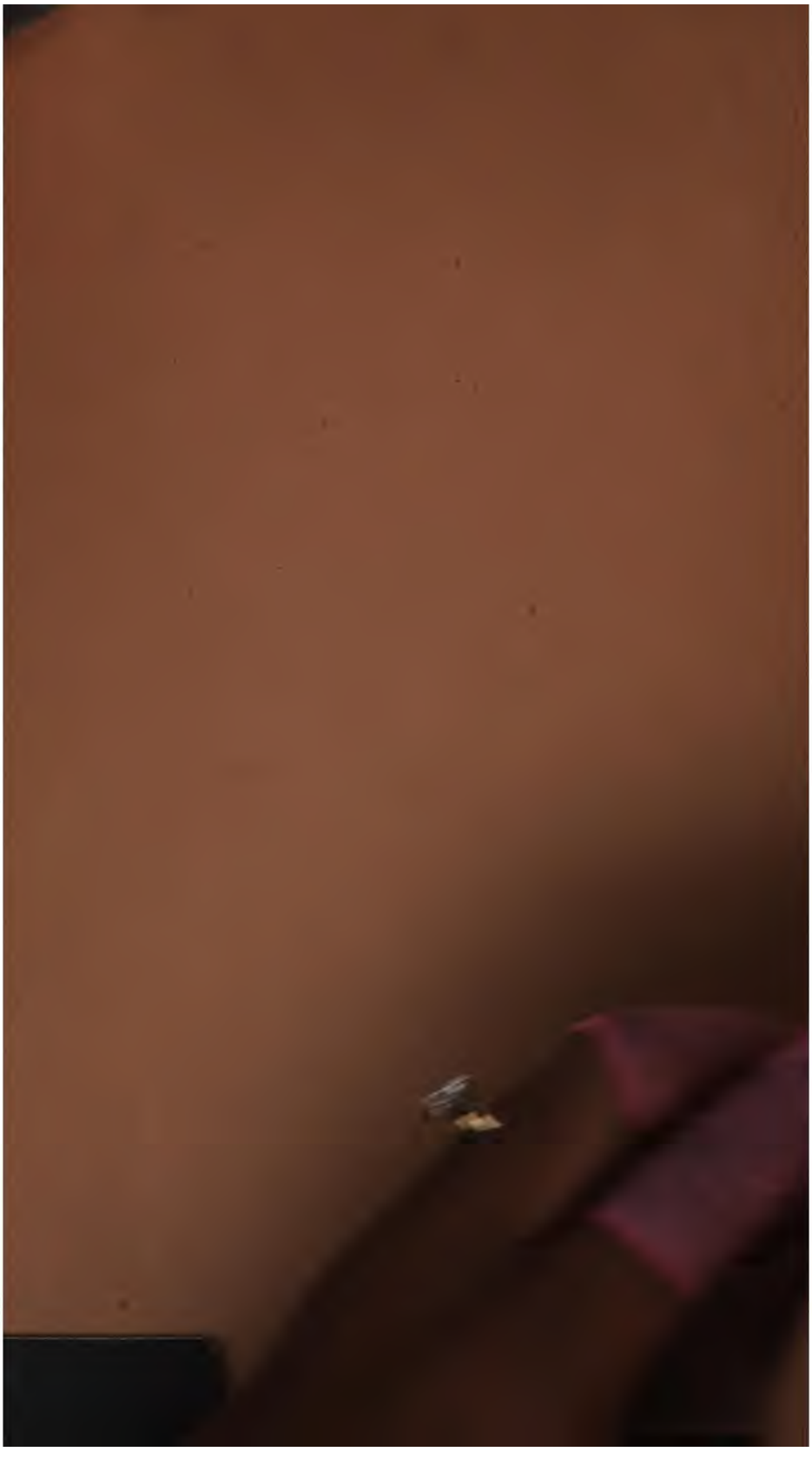
+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

Stanford University Libraries
3 6105 027 559 504

LIBRARY OF THE
Leland Stanford Junior University
NOT TO BE TAKEN OUT OF THE LIBRARY



41

Department of the Interior:

U. S. NATIONAL MUSEUM.

DEC. 23 1891

BULLETIN

OF THE

UNITED STATES NATIONAL MUSEUM.

No. 23.

BIBLIOGRAPHIES OF AMERICAN NATURALISTS.—
II. THE PUBLISHED WRITINGS OF ISAAC LEA, LL.D.

BY

NEWTON PRATT SCUDDER.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1885.

Department of the Interior:
U. S. NATIONAL MUSEUM.

— Serial Number 29 —

BULLETIN

No. 23

OF THE

NITED STATES NATIONAL MUSEUM.

PUBLISHED UNDER THE DIRECTION OF THE SMITHSONIAN INSTITUTION.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1885.

LELAND STANFORD JUNIOR LIBRARY UNIVERSITY
A114629

ADVERTISEMENT.

This work (Bulletin No. 23) is the twenty-ninth of a series of papers intended to illustrate the collections of natural history and ethnology belonging to the United States, and constituting the National Museum, of which the Smithsonian Institution was placed in charge by the act of Congress of August 10, 1846.

It has been prepared at the request of the Institution, and printed by authority of the honorable Secretary of the Interior.

The publications of the National Museum consist of two series—the Bulletins, of which this is No. 23, in continuous series, and the Proceedings, of which the eighth volume is now in press.

The volumes of Proceedings are printed, signature by signature, each issue having its own date, and a small edition of each signature is distributed to libraries promptly after its publication.

From time to time the publications of the Museum which have been issued separately are combined together and issued as volumes of the Miscellaneous Collections. These are struck off from the stereotype plates from which the first edition was printed, and in this form are distributed by the Smithsonian Institution to libraries and scientific societies throughout the world. Volume 13 of these collections includes Bulletins 1 to 10 inclusive; volume 19, volumes 1 and 2 of the Proceedings; volume 22, volumes 3 and 4 of the Procedings; and volume 23, Bulletins 11 to 15 inclusive.

Full lists of the publications of the Museum may be found in the current catalogues of the publications of the Smithsonian Institution.

SPENCER F. BAIRD,
Secretary of the Smithsonian Institution.

SMITHSONIAN INSTITUTION,
Washington, September 20, 1885.

BIBLIOGRAPHIES OF AMERICAN NATURALISTS.

II.

THE PUBLISHED WRITINGS

OF

ISAAC LEA, LL. D.,

BY

NEWTON PRATT SCUDDER.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1885.

PREFATORY NOTE.

The second of the series of special bibliographies, which was begun in 1883 by the publication of a catalogue of the published writings of Spencer Fullerton Baird (Bulletin 20, U. S. Nat. Mus.), is now presented.

Dr. Lea has contributed largely of his collections to the National Museum, and it is therefore eminently fitting that his writings, based upon this and similar material, should be published under Government auspices.

CONTENTS OF BIOGRAPHICAL SKETCH.

CHAPTER I.

Page.

Youth and manhood.—Early studies in natural history..... VII

CHAPTER II.

Visit to Europe.—Meeting distinguished scientists in England, France, and Switzerland XII

CHAPTER III.

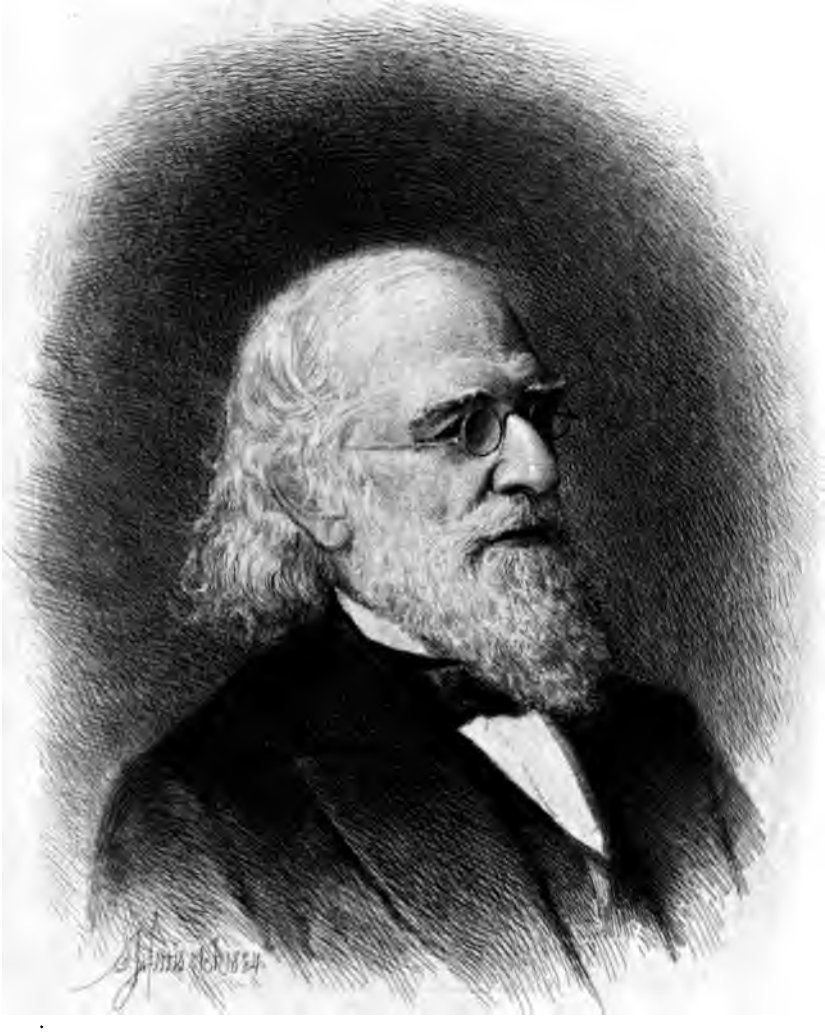
Scientific researches.—Retirement from business.—Second visit to Europe..... XIX

CHAPTER IV.

Examinations of collections of natural history.—Progress of science.—Descriptions of distinguished scientists.—Departure for America..... XXVI

CHAPTER V.

Return to Philadelphia.—Extracts of letters on scientific subjects.—Continued research.—Present occupations..... XLV



Isaac Lea L.L.D.

[illegible]

in the Friends Society.

BIOGRAPHICAL SKETCH OF ISAAC LEA, LL. D.

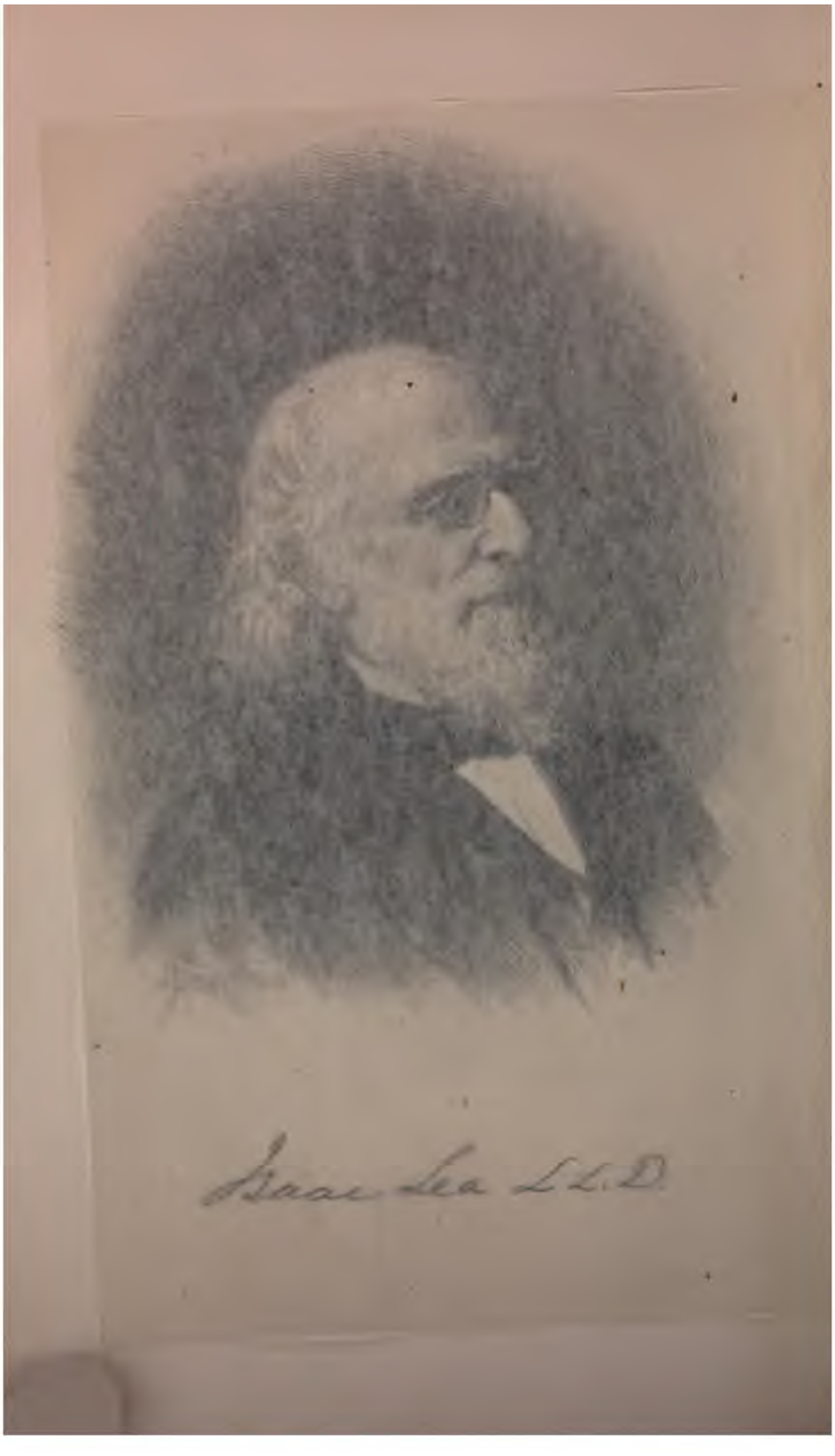
CHAPTER I.

YOUTH AND MANHOOD.—EARLY STUDIES IN NATURAL HISTORY.

The subject of this biography was born in Wilmington, Del., March 4, 1792. His ancestors, John and Hannah Lea, came from Gloucestershire, in England, with William Penn on his second visit, and "were a couple of noted and valuable preachers." His parents were members of the "Society of Friends," and this gave him a birthright in that society.

His father, James Lea, was a wholesale merchant. Isaac was the fifth son, and being intended by his parents for the medical profession, was sent to the academy at Wilmington to be instructed in the classics. But at the age of fifteen years a change of plans seemed desirable, and he went to Philadelphia to engage in the mercantile business in the wholesale and importing house of his eldest brother. It was at this time that he became intimate with the family of the late Professor Vanuxem, whose father was an eminent merchant and much interested in the public affairs of the city. Isaac's early love of nature was inherited from his mother, who was particularly fond of botany, and induced all her children to occupy themselves with the study of plants. Young Vanuxem also had a strong love for natural history, and the two friends in their frequent walks began collecting stones and examining the rocks in the neighborhood of the city. This soon grew into a desire to know the composition of the rocks, as they had no knowledge of any collections or scientific works. Not long after this they found that a cabinet of minerals was in possession of the late Dr. Adam Seybert, whose acquaintance they made. This was the only collection then in Philadelphia, and was subsequently sold to the Academy of Natural Sciences, which was formed in 1812.

In 1814 the two friends joined a volunteer rifle company which offered its services to the governor and held itself in readiness to march at any time. The English army were then in possession of Washington and the need seemed urgent, but in the following autumn the governor disbanded the company, so that they were never called into actual service. For this volunteering the subject of this sketch lost his birthright in the Friends' Society.


Isaac Lea LL.D.

already gone, except a very few copies; we printed one thousand, and shall print fifteen hundred of No. 2, and shall soon reprint No. 1." *

In the early numbers of the journal Mr. Lea contributed the following papers: "Notice of a singular impression in sandstone," "On hibernation," "On earthquakes, their causes and effects," "On the pleasure and advantage of the study of natural history," "Notice of two halos with Parhelia." In 1828 he published an article "On the Northwest Passage," in the American Quarterly Review, in which he advanced the opinion that if the passage was ever made it must be from west to east, as the current was up through Bering Strait, as reported by Captain Cook, and down through Davis Straits, as well known to all navigators. In this paper he gave an account of all the early navigators to the northern seas. Subsequently, in 1852, this theory proved to be correct, as was shown by Captain McClure's voyage.

In 1821 Mr. Lea was united in marriage to Miss Frances A. Carey, the daughter of Mathew Carey, the well-known publisher and writer on political economy, and became a member of the firm of M. Carey & Sons, which at that time was the most extensive publishing house in the United States. He retired from the successive firms in 1851. Few men have been more blessed in their married life, which embraced a period of fifty-two years, when the death of Mrs. Lea occurred, leaving her greatly afflicted husband with two sons and one daughter.

Finding that a knowledge of geology rendered an acquaintance of the mollusca necessary, Mr. Lea imported a large collection of shells from China, with the view of studying Lamarck's genera. This led him to study them thoroughly, and eventually it became an all-absorbing pursuit, particularly the study of fresh-water and land shells.

Major Long, of the Engineer Corps of the United States, was engaged in 1825 to deepen the channel of the Ohio River below Louisville, where a sand-bar obstructed navigation. Here he found many species of the genus *Unio*, which he collected and sent to the Academy of Natural Sciences, of which he was a member. They were splendid specimens; some were new to the members, and of course rare, valuable, and of exceeding great interest.

Mr. Lea's brother Thomas was at this time closing up his mercantile business at Cincinnati, and was in Philadelphia. He promised his brother that he would "look after the shells in his vicinity," adding that he "was sure none of such beauty were ever found in the Ohio." The result of his collecting was the shipment of a small barrel of shells—many of rare beauty, and six of them new species. The description of these formed the first of that series of papers which was Mr. Lea's chief study through a long life. His brother continued collecting from season to season until his death, which took place in 1844. Mr. Lea's calling the attention of his brother to the shells of the

* Mr. Lea believes he is the only surviving subscriber to this valuable journal from its beginning.

river led him to the collection of the land shells, of which he made a thorough study, and this brought him to observe the plants, and botany became eventually his principal study, and resulted in the publication of "The Plants of Cincinnati," in which was included all the cryptogams. This study changed the course of his life, which thereafter was given up to natural history. He said he "did not know what it was to live on God's earth before."

These collections of *Unionidæ*, &c., with others from friends elsewhere in the United States, enabled Mr. Lea to open correspondence in all the large cities of Europe, putting him in communication with most of the prominent naturalists of the time, and his exchanges brought him the choicest and rarest specimens.

In 1827 he published his first conchological paper, "Description of six new species of the genus *Unio*." It was presented to the American Philosophical Society and published in their Transactions. It consisted of descriptions of the six new species, and he did not then know that he should ever describe another species, so little was the scientific world aware of the vast number of species which inhabited the numerous rivers, lakes, and small streams of the United States; indeed, proving that this country was literally the home of the *Unionidæ*.

In 1828 Mr. Lea was elected a member of the American Philosophical Society and soon became active in promoting its interests. He was made chairman of the publication and finance committees, which office he held until his visit to Europe in 1852, at which time he sent in his resignation.

At this time also (1828) he became a member of the "Wistar Association," so well known throughout the country. It consisted only of members of the American Philosophical Society and a single negative vote was sufficient to prevent the election of a proposed member. It was a rule also that no person should know that his name had been proposed. This association was formed in 1818 after Dr. Wistar's death. He was president of the American Philosophical Society, and it had been his custom to receive his learned friends at his residence on Saturday evenings. After his death the gentlemen who had enjoyed these gatherings for so many years determined to form an association and gave it his honored name. The following-named gentlemen composed its membership the first year: Judge Tilghman, Professor Patterson, P. S. Du Ponceau, John Vaughn, Reuben Haines, Robert Walsh, jr., Z. Collins, Dr. James, and Dr. Robert Hare. In 1821 the number was increased by adding the names of Judge Hopkinson, William Meredith, Dr. Chapman, Mathew Carey, Nicholas Biddle, Dr. Dewees, and Langdon Cheves. In 1824 Horace Binney and John Sergeant were added to the list. John Vaughn was appointed dean, which position he filled until his death, in 1841, when Mr. Lea was appointed to fill the vacancy, which position was held by him until the association was dissolved by the war of secession in the year 1861.

During the period from 1825 to 1832 Mr. Lea's correspondence was very large, both at home and abroad, with various scientific friends in the same department of science. Among these were Judge William Cooper, Dr. Kirtland, Dr. Hildreth, and Drs. Ward and Jay, Major Le Conte, Judge Tappan, and others in Europe, who earnestly solicited him to undertake the whole subject of classifying the synonymy of the *Unionidæ* of the United States, which was at that time in almost inextricable confusion. He did not attempt this, however, until the year 1836, when his first edition of "A Synopsis of the Family of Naïades" was issued, which consisted of a thin octavo of 59 pages. This volume was augmented in various editions until it reached a fourth edition, which was published in 1870 in quarto, consisting of 214 pages.

CHAPTER II.

VISIT TO EUROPE.—MEETING DISTINGUISHED SCIENTISTS IN ENGLAND, FRANCE, AND SWITZERLAND.

In the spring of 1832 Mr. Lea went to Europe with his family, where he met the prominent men of science, and opportunity was afforded him of examining the best collections of the time. He was present at the second meeting of the British Association, which in that year was held at Oxford. He had met Dr. Buckland previously, who invited him to be present at the meeting. In London he had been present at a meeting of the Geological Society, where he met most of the leading geologists of Great Britain, who were discussing an important point in geology. Previous to going to Oxford Mr. Lea went to the north of England and on returning through the middle counties he traveled with William Smith, who was then on his way to Oxford to receive the Copley medal which was voted him by the British Association. Mr. Smith was called "the Father of British Geology" on account of his having been the first geologist in England who attempted to classify the rocks of that country by their characteristic fossils, and he was said to have preceded MM. Cuvier and Brongniart in that important step which gave such an impulse to this great branch of scientific knowledge.

While at Oxford Mr. Lea made the acquaintance of many distinguished scientists, and was invited by Dr. Buckland into the "robing room," where four of Britain's most eminent men, Brown, Faraday,* Dalton,† and Brewster, were to put on scarlet robes before going into the theater, where the degree of LL. D. was to be conferred upon them. It was interesting to see the Quaker Dalton, the discoverer of the atomic theory, robed and his white head covered with a velvet cap. When the vice-chancellor mentioned each name there was much applause, but when the name of Dalton was given the applause was loud, long, and reiterated. The other distinguished men to whom Mr. Lea was introduced at this meeting were Brunel, Conybeare, Davies Gilbert, Dr. McBride and others whom he had previously met in London. At the observatory he was introduced to Sir David Brewster and Rigo, the astronomer. At the geological meeting he listened to a most interesting discussion upon the "injection of veins," between the Rev. Mr.

* Mr. Lea had a letter to Professor Faraday from Professor Silliman. The former was then delivering a course of lectures in London, to which he invited him.

† Mr. Lea had previously visited Dr. Dalton in his laboratory at Manchester, where he was introduced by Dr. Henry.

Sedgwick and Mr. Moss. Subsequently, in London, Mr. Lea met Dr. Buckland, Mr. Babbage, and Mr. Broderip, at Mr. Stokes's, at that time secretary of the Geological Society who received his friends at breakfast on Sunday morning. Dr. Buckland inquired of Mr. Lea respecting the quantity of coal in the United States, stating that *he* "believed we had very little," and that he had his information from a very reliable source. Mr. Lea, thinking he knew from whom he had received this information, took great pains to disabuse him of this false impression. A large map of the United States was brought from the library of Mr. Stokes and laid upon the floor, and the canon of Christ Church with Mr. Lea spent several hours in the closest examination of it, Dr. Buckland meanwhile filling sheet after sheet with notes. At last he took his leave to meet an engagement, assuring Mr. Lea that "*England had enough to supply the United States when its supply should fail,*" to which Mr. Lea replied that the quantity of anthracite and bituminous coal was almost unlimited in North America, and that when he returned to his home he would send him a map of the country, showing the extent of the coal fields, together with a copy of the section of anthracite of the Pottsville basin, which he had in manuscript. This he subsequently did, and Dr. Buckland was so thoroughly convinced of the truth of Mr. Lea's information that he laid the matter before the next meeting of the British Association, with the letter and maps, assuring the members that "when the coal fields of England should be exhausted there would be plenty in the United States to supply their need." He did not anticipate then that the great consumption and exportation of coal was likely to exhaust England in one hundred years, as the late report to Parliament by a committee of sixteen experts has since demonstrated. It must be borne in mind that Dr. Buckland had stated "that England's prosperity is based upon her coal mines; that upon their exhaustion she would return to her original barbarism." He was not then aware that in many other parts of the world there existed inexhaustible quantities from which she could draw her supplies.

While in London Mr. Lea frequently met the most eminent scientific men. Among them was Mr. Vigors, the ornithologist, who was a candidate for a seat in Parliament for the county in which he was born. He inquired much about the political institutions of the United States. In speaking of the meeting of the British Association at Oxford, he stated a circumstance which Mr. Lea had not heard while there. The principal of Lincoln College, when Faraday's experiment of the magnetic spark was shown, asked him if that was "his invention." "It is my *discovery*," said Faraday. "Well, I am sorry to see it," said the principal, "for it is only giving another instrument to enable the bad part of our population to set fire to our barns and houses in the country."

During his stay in London Mr. Lea had the pleasure of dining at a friend's with the Rev. Sydney Smith, Miss Aiken, and a few other nota-

bles. He was also present, by special invitation, at the meeting of twenty-five lords who met to discuss the subject of the charter of the Birmingham and London Railroad, where he heard the celebrated barrister, Mr. Follet, plead for the charter of the railroad, which was refused as a result of their report.*

Mr. Lea was frequently at the British Museum, always receiving a warm welcome from Dr. Gray and the other officials. He presented to the museum many rare specimens.

At a meeting of the Royal Society at Somerset House, at which Mr. Lea was present, Dr. Buckland presided. A paper was read on the first discoveries of the spots in the sun. After the session most of the members retired to the tea room. Mr. Lea was there introduced to Dr. Bostock, the author of "Physiology," &c., and a number of other distinguished members.

The next day he called upon Mr. Claxton, the American mechanist who made the instruments by which Faraday showed the spark made by the magnet, which was creating great interest at that time in London. During the season the Duke of Sussex, president of the Royal Society, was giving *soirées* at Kensington Palace, to which Mr. Lea was invited and where he met many of the *élite* of science of that city. Mr. Murchison, president of the Geological Society, also gave *soirées* every other week, and at these gatherings Mr. Lea had the pleasure of meeting with Sedgwick, Buckland, Broderip, Babbage, Lyell, De la Bêche, Mrs. Somerville, and others.

At the request of Dr. Gray he went over the collection of *Unionidæ*, in the British Museum, arranged and named them correctly, adding some new species from the United States.

Mr. Lea was invited to dine with the club of the Royal Society, Mr. Marsden presiding. Here he met with Mr. Daniels, the chemist, Dr. Roget, Mr. Bailey, the astronomer, and Mr. Children, secretary of the society.

Subsequently he visited Paris, where he had numerous correspondents. J. Fenimore Cooper had written to him that Paris was nearly free from the cholera, and that it was safe to visit it. On his arrival there with his family shortly after, he found that two hundred and twenty-five persons were daily carried off with this frightful pestilence. Both Mr. Cooper and Mr. Wells, the American banker, advised him to remain, which he did, and in a few days it entirely disappeared. Mr. Wells and Mr. Cooper had established a cholera hospital, where during the epidemic eight hundred patients had been received. Mr. Lea and his family, consisting of himself, wife, and his two sons, escaped with a slight attack of what was called the "cholerine."

Mr. Cooper and Mr. Lea had planned with their families to go up the Rhine and be in Switzerland together, but as they could not agree upon

* The expense for this application to Parliament was £60,000. The following year they obtained the charter.

a time, Mr. Lea went on and was joined by Mr. Cooper in the autumn. In a letter from Vevay, dated May 26, 1832, stating the time he would leave there, Mr. Cooper wrote as follows:

"The comparison between Europe and America is not easily made. In many things which are the inevitable consequence of time and a dense population, this quarter of the world has the advantage, but the balance is, in my opinion, immensely in our favor. In moral civilization and in common sense, we are a century in advance of the best of them. The time will come when our notions will come in fashion, and, allowing for the omissions that are part of the plan, the book will become authority."* "I have only to develop its opinions and support what I have said by a citation of facts and reasons that are at my fingers' end, to give it vogue in six months. But I have higher views. * * * It is my intention to return home in the spring, or rather in June next. The age of my children requires this of me, for no consideration would induce me to establish one of them in Europe."

Soon after Mr. Lea's arrival in Paris he called to see General Bernard, with whom he had been well acquainted in the United States, during his several years' service in the Army as chief of the Engineer Corps. At this time he was the war minister of Louis Philippe. From him Mr. Lea learned many things of the workings of the Government not generally understood. Before leaving Paris in the autumn he addressed the following note to Mr. Lea:

PARIS, *October* 12, 1832.

DEAR SIR: I intended to call on you and present to yourself and family my respects, but, being under pressure of business, I could not find one moment to do it.

I have received a letter, in which General La Fayette complains of your having not yet visted him at La Grange. He insists, and requests me that I should inform you, that it will be for him a great pleasure to receive you at La Grange before your departure for America.

Make my best compliments acceptable to Mrs. Lea, and be so kind as to receive the expression of my best respects and of my distinguished consideration.

Your devoted servant,

BERNARD.

Mr. Lea had been introduced to La Fayette on his visit to the United States, and had called at his residence in Paris, but he had gone to La Grange.

He also called on Baron Ferussac, the best authority in Paris on terrestrial and fluviatile mollusca. He was received with great politeness, and they talked over their favorite subject, the *Unionidæ*, for two hours. The baron was at that time engaged in preparing his great work on the *Unionidæ*, embracing those known in all countries. It was to be folio size, and equal in elegance to his work on the *Helices*. He showed Mr. Lea some of the drawings, which were very fine. The latter had published his first two memoirs, which Baron Ferussac had received, and he complimented Mr. Lea by saying that he could not go on with his work until he (Mr. Lea) had finished his memoirs. The subject was continued by Mr. Lea, who published thirteen quarto volumes. The

*The book referred to was a work which Mr. Cooper was preparing, which was published by Mr. Lea's house.

last volume was published in 1874, and still the American *Unionidæ* were not exhausted. At that time no writer in Europe had any idea of the extent of the species in the United States, as the *Unionidæ* are more developed in this country than elsewhere. The baron's cabinet was rich in valuable specimens. It contained the *Unionidæ* which Spix and Von Martius brought from Brazil, and others from Syria, Turkey, and Egypt. Mr. Lea spent two hours of eight consecutive mornings going over the collection, which he rearranged, cutting down the species and forming synonyms almost without end.

During Mr. Lea's visit in London the announcement of Cuvier's death was made. His loss to science was universally lamented. Mr. Lea had brought from America a letter and some books from Professor Silliman for him. He called at Cuvier's late residence, intending to leave them, but his daughter requested to see him. She was, of course, in great grief, and stated that her mother was prostrated by their great loss. She, however, wished him to see her father's library, and he spent some time looking it over. Among the many fine works it contained she pointed out Poli's great work on the Mollusca of the Mediterranean,* published at the expense of the King of Naples, certainly the most important work on the mollusca.†

While in Paris Mr. Lea accompanied Baron Ferussac to a meeting of the Institute, and was there introduced to the president, La Croix, the mathematician, Latreille, Blainville, and Frederick Cuvier. There were about one hundred members present. Biot, St. Hilaire, and others were pointed out. By appointment Mr. Lea met Blainville, Ferussac, and other scientists at the Jardin des Plantes to arrange and name all the *Unionidæ* of the collection, which he did, adding fourteen species.

Leaving Paris he went to Belgium, and from thence ascended the Rhine into Switzerland. At Berne he called on Professor Studer the elder, who was then blind. A letter from Baron Ferussac was his introduction. The professor needed no letter. He was extremely kind, and, after spending two hours over his collection, which at that date was the best in Switzerland, he presented to Mr. Lea the last copy in his possession of his work on the land and fresh-water shells of that country, complimenting him on the papers which he had written. His son, who had succeeded him in the university, was present, and offered his services to Mr. Lea during his sojourn in Berne.

At Geneva Mr. Lea called on De Candolle, to whom he had a letter from Baron Ferussac. Unfortunately he was out of the city. Mr. Lea, however, had previously corresponded with De Luc, whom he saw and who took him to a meeting of the Société de Physique et d'Histoire Naturelle, where he was made acquainted with the leading members.

---

* A few years afterward Mr. Lea procured this work through Prince Charles Buonaparte.

† M. Blainville showed to Mr. Lea with great pride the wax models of these mollusca, which Napoleon had brought to Paris after he had subdued the kingdom of Naples.

From Geneva he went to Chamouny and visited the *Mer de glace*, penetrating some distance under the ice. Here he saw the immense blocks of granite brought from the upper part of Mount Blanc, forming the lateral moraine, and strewed over the plains below, following the course of the Arveyron, was formed a terminal moraine, which was then receding. Higher up the mountain continual avalanches were heard. Returning to Paris he found that Baron Ferussac had made a catalogue of the *Unionidæ* during his absence on Mr. Lea's plan. In the mean time Mr. Lea had received his boxes of shells from America and he carried some of the finest to the Baron, who expressed himself greatly delighted. He had not seen anything like them before.* Wishing to see the Duc de Rivoli's collection, which contained all those of Lamarck, he called upon the duke, who unfortunately was absent from the city, but his curator, M. Kiener, had been instructed to give Mr. Lea access to the collection of *Unionidæ* whenever he should call. Mr. Lea took notes of them all, and thus was able to define the whole of Lamarck's species in his subsequent memoir. He visited the Institute accompanied by M. Blainville, who carried with him a copy of Mr. Lea's Memoirs on the *Unionidæ*, which he presented to the Institute, paying many compliments to the author on his production, who, on this occasion, had the pleasure of meeting M. Audouin, M. Latreille; and others. M. La Croix presided, and there were about two hundred persons present, and the meeting presented a remarkable assemblage of learned men, very striking to a stranger.

Mr. Lea had letters to Brongniart, who was then director at Sèvres, and one of the great geologists of France. He invited him to a dinner, where he met about a dozen gentlemen who were among the distinguished *savants* of Paris: M. Jaumard, M. Audouin, M. Cailliaud, the traveler, and the director of the Musée Egyptienne, M. Dumas, and M. Gay, who had just returned from the expedition to Brazil and Chili, who afterwards published so many volumes on the natural history of South America. At the dinner Mr. Lea sat beside M. Gay, who was particularly polite, and invited him to call upon him the following day. Accepting the invitation, Mr. Lea was surprised to find that M. Gay had brought out all the mollusca which he had collected in his travels, and desired him to select a specimen of each, "first for the Musée, and then for yourself." This was an unexpected kindness from so distinguished a traveler, which Mr. Lea gratefully accepted, thus securing some rare and fine specimens for his own cabinet.

While in Paris he called on M. Duclos, the author of a splendid work on the genus *Oliva*, &c. His collection of *Oliva*, *Purpura*, and *Columbella* was truly magnificent, and showed what persevering effort in one direction will accomplish. It was arranged in a manner to exhibit all ages and varieties which could be obtained. M. Duclos thought that

*Baron Ferussac's death occurred about two years afterward.

generally there is a black and white variety of each species of *Oliva* with the intermediate shades, and many of his specimens most curiously proved this.

Mr. Lea, by appointment, called on the Duc de Rivoli (Massena) to see his magnificent collection, which was said to have cost him one hundred thousand francs. It consisted of Lamarck's and some others, besides fine and rare specimens which he had purchased.

General Bernard, the minister of war, called on Mr. Lea, and gave him much information respecting the private life of Louis Philippe; in fact he said that the King "regretted the private station he had left," and added "that some things had improved in France, but that only one person in twenty could read in that country."

While in Paris Mr. Lea frequently was with M. Deshayes, who was certainly better acquainted with mollusca than any other person in France. He found that Deshayes had enemies, but his publications, and his subsequently obtaining the chair of Lamarck in the Musée, were evidences of his great merit. He was most kind and generous to Mr. Lea, giving him rare specimens and some of his manuscript notes which were of great value to him. At his house he met Admiral Duperrey (who made a scientific voyage round the world), M. Légris and Dr. Gray, of the British Museum.

CHAPTER III.

SCIENTIFIC RESEARCHES.—RETIREMENT FROM BUSINESS.—SECOND VISIT TO EUROPE.

Mr. Lea returned from Europe in November, 1832, having enjoyed an almost unequaled opportunity of meeting the distinguished scientific *savants* of the times, men whose names will be honored as long as scientific research shall endure. He had found that the few papers which he had published on American mollusca had created an interest far beyond his expectation, and that the doors of the naturalists were open to him wherever he wished to enter. He was earnestly solicited to "go on with the investigations commenced," being told that "no naturalist in America or Europe had the advantages possessed by him; that they were unrivaled." "The admirable fidelity of all your descriptions so evidently from life and so full of acute discrimination." But to his great astonishment he found that advantage had been taken of his absence, which had prevented him from securing his share of the collection of Tertiary fossils of Alabama, made by Dr. Gates, who was sent to the South by subscriptions made in Philadelphia and New York; and that the whole of the Philadelphia quota had been placed in the hands of Mr. Conrad, who was not one of the subscribers. Mr. Lea was not made acquainted with the fact until he saw the first numbers of Mr. Conrad's published descriptions.

In 1829, and for several years subsequently, Mr. Lea had received all these species from his friend, Judge Tait, ex-governor of Alabama, but at that time he was too much occupied with his elaborate work upon the *Unionidæ* to undertake the description of them. When, however, he discovered that his own property had been put into Mr. Conrad's hands, he went vigorously to work on those already in his possession, and on the 27th of August, 1833, presented his paper complete to the Academy of Natural Sciences of Philadelphia. It contained two hundred and twenty-one species, and the figures were so admirably executed by Mr. Drayton, the artist, that they were said to be almost equal to the originals. In regard to this work, Mr. Murchison said, in a letlet to the author acknowledging its receipt:

> Accept my very best thanks for your handsome "Contributions to Geology." If every good conchologist like yourself would thus vigorously set to work, we might in some few years have collected full material for our superstructure. I like the coloring of your fossil plates very much, and altogether the work has quite the stamp of being issued by one of the best workshops of Europe.

The late Sir Charles Lyell, Bart., thus wrote to him in November, 1834:

I take the opportunity of adding to the thanksof the Geological Society, which I am instructed to forward officially, my own acknowledgment of your very handsome present of your splendid work on the Genus *Unio*, as also for the manner in which you have endeavored to give publicity in your writings to some of my geological views respecting the Tertiary strata.

Mr. Lea, at this time being engaged in a large and prosperous business, had no leisure in the day-time to pursue his studies in natural history. He was blessed with excellent health, and could devote from three to five hours at night to writing his papers.

He found on his return from Europe many boxes of specimens from various parts of the country awaiting his inspection, and also a very large correspondence.

His first production after this was his "Contributions to Geology," it being a description of the Tertiary shells of Alabama. This was followed by a continuation of his "Observation on the Naïades, &c."

In 1836, he published his "Synopsis of the Family Naïades," a small octavo volume which in subsequent years was followed by a second, third, and fourth edition, the last being enlarged tenfold in extent from the first. The second, third, and fourth were in quarto. The first edition settled satisfactorily to most conchologists the synonymy of the family, and was received almost unanimously as giving the true names and synonymy of the species. He was congratulated by many zoologists, at home and abroad, upon settling the vexed question. Dr. Kirtland, Senator Tappan, Dr. Ward, Dr. Hildreth, Mr. Buchanan of the West, Judge Cooper, Dr. Jay, Mr. Haines, Dr. Budd, and many others of the East, wrote him congratulatory letters upon the occasion. Prince Charles Buonaparte, than whom there was no higher authority in Europe, said in his letter:

I have been admiring your synoptical table, and should like to see all parts of zoology treated in the same manner.

And Mrs. Corrie,* the wife of the president of the Philosophical Society of Birmingham, in one of her numerous letters, said:

"I hope the high reputation which these contributions have established, will stimulate you to further researches. You possess advantages unrivaled by those of any other naturalist in your own hemisphere or ours. I trust, my dear sir, that you will have health and time to exercise them fully for the universal benefit of science."

Dr. Kirtland, who was appointed zoologist for the State of Ohio, constantly consulted Mr. Lea in regard to the mollusca of that State, and in March, 1836, he writes that "the Western naturalists have come to the determination not to adopt the species of Rafinesque, as given by Mr. Conrad, but to adopt yours."

Mr. Lea continued his work on the *Unionidæ*, and published a series

*She had one of the best collections of the *Unionidæ* in Europe, and no one was better acquainted with this branch of conchology.

of papers on the subject, also occasionally a paper on a geological subject, as a reference to his bibliography will show. Some of these were eminently important, particularly the continuation of his papers on new *Unionidæ*, their anatomy and physiology, and the one on the foot-prints of the *Sauropus primævus* found by him in the Red Shales at Pottsville, Pa., 1,700 feet below the conglomerate, being in Professor Rogers's Formation No. XI, and which constitutes the oldest case of an air-breathing animal on record.

Professor Agassiz, however, at the meeting of the American Association of Science at New Haven, asserted that he "did not believe that any air-breathing animals had existed before the New Red Sandstone."

This assertion was made notwithstanding Dr. King had published his discovery of saurian foot-prints near Greensburg, Pa., between the coal strata in Rogers's Formation No. XIII. These foot-prints are several thousand feet above those mentioned by Mr. Lea in No. XI.

Professor Rogers subsequently procured through Professor Sheafer, the geologist, and his assistant, impressions of the same species at the same locality. Mr. Lea was well aware of the great importance of this discovery, and some years after his publication in the "Transactions of the American Philosophical Society," with reduced figures on stone, he issued a fine edition in large elephant folio, which enabled him to print the figures life-size in the exact color of the Red Shale, thus producing a fac-simile of the original. The type was necessarily so large that he had to have it cast for the purpose, and the paper was also made expressly for the work. The whole was eminently successful, and it presents a specimen worthy of American typography and book-making which is nowhere excelled.

Previous to this he published numerous papers on fluviatile and terrestrial mollusca, and his important paper on the description of the "Clepsysaurus Pennsylvanicus, of the New Red Sandstone Formation of Pennsylvania."

Having retired from business, he determined to revisit Europe, and took passage from Philadelphia, in the steamer City of Manchester, June 3, 1852, accompanied by his wife, daughter, and sister.

Arriving at Liverpool on the 17th of June, he spent four or five days with his old friend and correspondent, William Rathbone, esq., and was very glad to see again his friend Prof. Thomas Nuttall,* who was invited with several others to meet Mr. Lea at dinner.

*Professor Nuttall, the eminent botanist and ornithologist, had returned to England to reside, a fortune having been left him by an uncle on condition that he should not leave England more than three months of each year. This was hard for such a thorough lover of nature as Professor Nuttall to assent to and was accepted only for the sake of his two sisters. He nevertheless managed to have six months by taking the last of one year and the beginning of another. This was his method, as he told Mr. Lea at his house in Philadelphia, where the professor was a frequent and always a welcome guest.

From Liverpool Mr. Lea with his family went to London, where he was received by his former friends, and made many new ones among the younger naturalists, among whom the most valuable were the late lamented Edward Forbes, of the Government establishment of British Economic Geology, and S. P. Woodward, of the British Museum, and author of that excellent work, the "Manual of the Mollusca." He also met his old friend Mr. Abbott Lawrence, then American minister to England, and enjoyed the hospitality of Mr. George Peabody at a "white-bait dinner" at Blackwell's.

He visited the Houses of Parliament, where he heard Lords Brougham, Grey, and Campbell the chancellor, and D'Israeli, and Gladstone. Lord Brougham was nervously restless; Lord Grey was clear and earnest; Lord Campbell was the most natural and certainly the best speaker.

Leaving London, Mr. Lea paid a brief visit to Paris, and went from thence to Brussels, passing but a short time in each city. At Brussels he had the privilege of meeting Quetelet, the well known scientist.

He afterward visited Bonn, where he met Professors Troschel and Roemer at the university. The latter, whom he had entertained in Philadelphia, expressed great pleasure at seeing him in Europe, and offered every service in his power. He was at that time engaged upon his work on the "Tertiary Shells of Texas," and had Mr. Lea's work on the "Tertiary of Alabama" before him. Mr. Lea saw here the *Archegosaurus* and numerous other fossils. Professor Roemer told him there were about one thousand students at the university. He took him to see the extensive collection of minerals and fossils of Krantz, who had a fine head of the *Zeuglodon* and a perfect *Ichthyosaurus*. Mr. Lea, with his family, went up the Rhine, stopping at Neuwied to see Prince Maximilian, the eminent naturalist and author of "Travels in North and South America." During his visit to Philadelphia the prince had been a frequent guest of Mr. Lea, and they had corresponded after his return to Europe. He received the ladies and Mr. Lea with great courtesy and hospitality, and offered the kindest service and advice with reference to their intended journey in Switzerland and through the rest of Europe. He most kindly gave Mr. Lea a circular letter of introduction addressed to all scientists in Germany.

From Neuwied Mr. Lea went to Ems, Schwalback, Schlangenbad, Wiesbaden, and from thence to Frankfort, where he met Von Meyer, who was then engaged in describing the Saurian bones, of which he had several species. He showed Mr. Lea his drawings and manuscripts. He had been twenty-eight years engaged in the study of fossil reptiles. Mr. Lea greatly enjoyed this visit and the kindliness of his reception.

At Heidelberg he saw Professors Bronn and Leonhard, both of whom were busy in making investigations. The latter was at his pseudocrystals, of which he showed Mr. Lea many of feldspar, garnet, &c.

At Geneva he had the pleasure of meeting Moricand, with whom he

had corresponded for many years. He showed Mr. Lea his very fine cabinet of shells, and gave him some rare terrestrial mollusca from Guatemala, &c., which he had collected while traveling there.

From thence he went to Chamouni, where he examined the glaciers, which were magnificent. He went on the *Mer de glace* and examined the blocks of granite lying on the ice. The exit of the Arveyron, flowing under the glacier and strewing hundreds of huge blocks of granite in its course, was particularly interesting, as was also the deep cave of blue ice.

In his visit to Zurich Mr. Lea met two of the professors of the university, Schintz and Mousson. Passing through the ancient city of Ulm, he stopped at Stuttgart, where he found Professor Yeager, of the university, had already gone to attend the meeting at Wiesbaden, but he saw Professor Krauss, who very kindly showed him the excellent collection of the public museum, which embraced tusks and molars of the mastodon of great size. One tusk was said to be 3 feet in circumference and 17 feet long.

Mr. Lea hastened on to Wiesbaden, where he found Professor Yeager expecting him. He and Professor Krauss introduced him to many of the members. There were assembled some eight hundred of the prominent scientific men of Germany, among whom Mr. Lea more particularly made the acquaintance of Haidinger and Von Hauer of Vienna, Dunker, Von Buch, Müller, Kurr, Gerhard, Klipstein, Remak, Stilling, and Desor. Professor Leonhard read a paper on "Pseudo-crystals" and Von Hauer read one on the "Tertiary Mollusca of the Vienna Basin." Professor Kurr read a paper on the diluvian of the Swabian Alps in which were found human teeth with mastodon bones. Von Meyer expressed his belief that "they were recent, and accidentally mixed with the fossils."

Mr. Lea subsequently went to Strasburg, where he saw Professor Schimper, the distinguished geologist, who received him most kindly, being introduced by letter from Prince Charles Buonaparte. He showed Mr. Lea specimens of the Kuiper, Muschel Kalk, and Bunter sandstones concerning which he had published so much, and gave him his papers on these subjects, together with specimens, and kindly offered to take him to the Vosges localities to see the different formations, but Mr. Lea could not spare the time. He gave Mr. Lea the geology from Strasburg to Paris by the road which he intended to travel, which was very interesting.

Arriving in Paris, Mr. Lea saw Boivin and Petit, both eminent conchologists. He arranged and named the *Unionidæ* in each of their cabinets and gave them numerous new species from the United States. He also spent some time with D'Orbigny, the well-known geologist and traveler who discovered that remarkable and rare shell which he called *Acostea* from the rivers of Colombia, but which Mr. Lea had suggested

was the *Mulleria* of Ferussac, as it afterwards on examination proved to be, he very kindly gave Mr. Lea a fine specimen of it.

During his stay in Paris, Verneuil, the geologist, called upon him. He had just returned from Spain, where he had been to examine the geology of that country. He invited Mr. Lea to dine with him, to meet some of the most distinguished geologists of Europe. There were present Elie de Beaumont, Leopold von Buch, Count d'Archiac, Barrande, Mechelin, and Dumont.

At the hospitable house of M. Petit, Mr. Lea met with Largierelett of Rouen, who expressed "great pleasure in meeting with the author of so many fine memoirs." He invited Mr. Lea to visit him at Rouen and view his cabinet. Michaux, the eminent botanist, called on Mr. Lea and accompanied him to the marine department to see a bust of Fulton which he had made in marble from a bust in clay by Houdon. Michaux had induced the Government to permit him to place it there, there being only one other bust in this rich museum of naval matters, and that was of one of their celebrated admirals.

Michaux called by appointment to consult Mr. Lea about his will, intending, as he told him, to leave a considerable amount to the American Philosophical Society of Philadelphia (of which they were both members), to form an arboretum. Mr. Lea told him the necessity of using the legal form of a bequest in France. He called the next day with his will sealed, and a letter to the Philosophical Society expressive of his wishes, and put them in the charge of Mr. Lea, who forwarded them to Dr. Robert M. Patterson, who was then president of the society.

Michaux told him that he was the *only* passenger from Albany with Fulton on his return trial trip to New York, and said that "people were afraid of being blown up." This was Michaux's first acquaintance with Fulton, and created a friendship which lasted through life.

While visiting in Paris, Mr. Lea frequently saw Prince Charles Buonaparte, whom he had known in America and who had been his correspondent for many years. The prince gave him a dinner, at which the ladies of the party were present. Among the guests were his two cousins, Prince Lucien and Prince Napoleon. The latter bore a striking resemblance to his uncle, Napoleon I. In the evening there was a brilliant reception.

By appointment, Mr. Lea called upon Elie de Beaumont, and after passing an hour in conversation with him they went to the annual meeting of the Institute, M. Lebrun presiding. Four papers were read. M. Petit accompanied Mr. Lea to meet Dr. Chenu, the naturalist and author, who had the great collection of Delessert under his charge. At that time it consisted of Lamarck's and Prince Massena's collections united. The chief object of seeing this collection again on the part of Mr. Lea was the hope of finding the original specimen of *Mulleria* of Ferussac, which had never been figured, but described in 1823 by Ferussac, and as being in Lamarck's collection. He told Dr. Chenu

that he thought it must have been mixed with the *Etheria*, of which this collection had many specimens. Dr. Chenu declared this could not be so, or he would have seen it. As soon as he pulled out the drawer, Mr. Lea saw at a glance the identical specimen which Ferussac had described. He took it up and declared this to be it. Both the naturalists were surprised and delighted. The two valves of the young shell, when it made its remarkable change, were plainly visible but somewhat eroded. Thus Mr. Lea's theory of the genus *Acostea* of D'Orbigny was complete—it was a *Mulleria*.

Dr. Chenu went for Delessert, who was in another part of his hotel, and soon returned and presented him to Mr. Lea. He expressed great pleasure in meeting him, and was much pleased to find that this specimen was recovered and was of so much interest. He said, "We must bring it before the Institute."* Mr. Lea told him that it was not necessary, as he had published his theory, which was now verified, before he had left home.

At Lyons he saw M. Tervier and his beautiful collection of Mollusca. It was particularly fine in terrestrial shells, on which he had published much. Leaving Lyons, with his family he descended the Rhone, and passing through Avignon and Nimes, arrived at Marseilles. From thence they traveled by private carriage through Italy for seven months until they came to railroads again at Vienna in the following spring. At Florence, where he remained over three months, he made the acquaintance of several men of science and art, among whom were Powers, the American sculptor, and Pentland, the English geologist. He had a letter of introduction to Professor Corridi, director of the academy, who courteously offered his services in every way possible. He also had letters to the Marquis Torregiani, who had been in the United States and was much interested in introducing the public-school system of the United States into Tuscany. He made an excursion with the marquis and Mr. Pentland 7 miles from the city to examine the Nummulite formation. He asked Mr. Pentland if any other organic form had been found with nummulite. He replied, "that none had been found." They examined the quarry thoroughly and Mr. Lea found among the small pieces a specimen with a favocite, which greatly surprised Mr. Pentland.

After passing a month in Rome, they visited Naples, where they examined all the points of interest in this beautiful city. Mr. Lea having letters to Professor Schacchi, called on him and saw the collection of minerals belonging to the university. Those from Vesuvius were particularly interesting. He also met Signor Dolli Chiaji, successor of the famous Poli, who finished his great work on the Mollusca of the Mediterranean. While at Naples he visited Vesuvius, Pompeii, Baiæ, Posilippo, the Temple of Jupiter Serapis, Pæstum, and Herculaneum, after which he embarked with his family in a steamer for Leghorn *en route* for Florence, where they remained four or five weeks.

*He was a member of the Institute.

CHAPTER IV.

EXAMINATIONS OF COLLECTIONS OF NATURAL HISTORY.—PROGRESS OF SCIENCE.—DESCRIPTIONS OF DISTINGUISHED SCIENTISTS.—DEPARTURE FOR AMERICA.

In the spring of 1853, Mr. Lea with his family crossed the Apennines to Bologna, afterwards visiting Modena, Milan, Padua, Verona, and Venice, where they remained three weeks. Returning to Verona they crossed the Tyrolean Alps to Innspruck, from thence to Lindau, where they took the steamer down the Danube to Vienna.* Here Dr. Lea met a number of his German scientific friends. Haidinger and Von Haur were the first to call upon him and offer their services. The former said that he was "a member of the Academy of Natural Sciences of Philadelphia, and therefore Dr. Lea must feel at home in Vienna."

He introduced him to Professor Hörness at the Imperial Academy, who was then engaged on the Tertiary Shells of the Vienna Basin, and to Professor Swess, who was occupied in the minute examination of the *Brachiopoda*. Von Hauer also came, and they had a long conversation on many geological and zoological subjects.

They then went to the ichthyological department, where he was introduced to Professor Heckel, who was examining some magnificent specimens of fossil fishes from Monte Bolca. Other professors came in and Dr. Lea was received with a hearty German welcome. Professor Hörness showed him some Tertiary shells from Texas, which Dr. Lea recognized as the same species which he had from Alabama, showing him the figures in his book, which Professor Hörness had in his possession.

A few days after, he called upon Professor Haidinger by appointment to meet Professor Von Hauer at the Imperial Geological Institute. The professor, however, was too unwell to leave the house, and detained Dr. Lea nearly three hours, talking over various geological matters and showing him many things of very great interest.

Subsequently Dr. Lea went to Professor Von Hauer, and they immediately commenced the examination of the rocks of Austria. The professor showed him specimens of great interest, as a formation, which he believed was between the Dias and Trias, differing from them both in its fossil characteristics, but rather more resembling the Trias. It contained many large *Ammonites*, *Nautili*, *Orthoceratites*, &c. One magnificent *Am. Meternichii* had the most beautiful chambers which Dr. Lea had ever seen in any specimen of *Ammonite*; it measured 2 feet in diam-

* While in this city he received information that Harvard University had conferred upon him the degree of LL. D.

eter. All the species in this formation are new. Von Hauer called it *Hallstatter Schichten;* it is the same as that of St. Cassian in the southern part of the Alps. He told Dr. Lea that in the Vienna Basin the Miocene and Pliocene were one formation, that they could not make a separation. He also showed him a fossil *Unio* which came from the Tertiary of Sölsnitz. It was about 4 inches wide and undulate over the posterior portion. The geological survey of the empire was being made by the members of this institute at the rate of 10,000 square miles a year, and would require thirty years to finish it. It was on an enormous scale.

Dr. Lea was gratified by receiving a call from Professor Boué, the geologist, who had been a student with his old friend, Professor Vanuxem, in Paris in 1816. He resided some distance in the country, but hearing that Dr. Lea was in Vienna, very kindly came to see him and offered his services.

Dr. Lea made other visits to the Imperial Geological Museum, and in one of these he saw Professors Hörnes and Swess. After comparing some fossil shells Professor Swess went with him to the zoological department, where he introduced him to Professor Frauenfeld, and to the distinguished zoologist, Desing, who had unfortunately become blind. They received him with the kindness so characteristic of the Germans. With these professors Dr. Lea went over the whole collection of *Unionidæ* and found much that was very interesting, particularly the specimen which he recognized as figured in Wood (Index Testalogicus) as *Mya nodulosa.* It was labeled *Chama plumbea* by Muhlfeld, but the habitat was not given, which is very much to be regretted, as Wood knew not whence it came. The great interest attached to this mollusk is that it does not belong to the nodulous group of North America *Unionidæ.* By inspecting this specimen, which consists of the right and left valve of two different individuals, Dr. Lea detected the very curious fact that both the teeth (cardinal and lateral) are *striate*, like the teeth of *Castalia.* Neither Wood nor these gentlemen had observed this important characteristic which places it in another genus, while exteriorly it is the same as *Unio.** Dr. Lea had a long conversation with Professor Swess about the muscles of the *Brachiopoda.* He and Mr. Davidson of London did not agree with Professor Owen on the use of these muscles. He showed Dr. Lea many curious forms of the interior processes of the *Terebratula*, recent and fossil, and as his paper was soon after published with good figures, the result was exceedingly interesting to malacologists. Dr. Lea showed him the muscles of attachment in the shell of the *Unio*, and that of the ligament of the back, for the purpose of giving him some hints as to the probability of finding something analogous in the *Brachiopoda* in reference to the open condition of its valves when at rest, referring also to those genera which have internal ligaments, viz,

* Dr. Lea wrote from Vienna an account of this discovery to Dr. Leidy, to be read before the Academy of Natural Sciences.

Mactra, *Gnathodon*, *Amphidesma*, &c. Desing listened with interest to what was said, and seemed to have well considered some of the facts connected with the anatomy of the animals. His investigations had been chiefly in the *Annelides* and intestinal worms.

It was with great regret that Dr. Lea finally parted with these Vienna gentlemen, who had been kind to a marked degree, particularly Professor Haidinger, who remained his correspondent until his death.

Leaving Vienna with his family he made the journey to Prague by railway, a distance of 250 miles. The country is almost perfectly level, being diluvian, and is thoroughly cultivated, the people appearing prosperous and happy. In the latter part of the journey the formation is transition (graywacke).

At Prague he called upon Barrande, whom he had met at Verneuil's dinner in Paris, but he had gone to the country, and Dr. Lea did not see him again as he had hoped. Thus he lost the advantage of examining probably the best collection of fossil remains of the Silurian formation in existence. Barrande had already sent his extensive work to him.

At the beautiful city of Dresden Dr. Lea visited the Green Vaults, where he saw the splendid collection of diamonds and other precious gems for which this city is celebrated. There were many diamonds of different colors, among which the green one is the largest and rarest.

During his visit at Berlin he had interesting interviews with Humboldt, Ehrenberg, Johannes Müller, the two Roses, and others. Humboldt was still active, and was then engaged on his Cosmos. The great philosopher had simple but thoroughly well-bred manners. Though living at court, as one might say, for the King always had a plate for him at his own table, he had none of the formality of a courtier. As an astronomer, geologist, and geographer he had few equals, and the interest he felt in the new discoveries in geology and physical geography was unabated. He went to the point of a subject at once, and with pencil in hand demonstrated his views. In the course of an hour and a half's conversation in his study he frequently got up to bring maps from his library to illustrate his subject. He showed Dr. Lea some of his plates and drawings for his new volume of Cosmos. He expressed great satisfaction with the geological surveys which were then being made in the United States, and with the many valuable observations in astronomy, magnetism, &c. He regretted that some of the reports of the surveys made to Congress were not better printed and illustrated.

He mentioned the Coast Survey and Professor Bache as connected with it. He also spoke of Captain Wilkes's expedition with great favor, as well as of Professor Mitchel, the astronomer, and others who were "doing good service to science." The Nebraska "Mauvaises terres" was discussed, and with the map before them Dr. Lea mentioned the researches which had been made by Dr. Owen, and the paper of Dr. Leidy. Humboldt spoke of the good reports of the New York geologists and others. Of Mr. Lyell he said, "there was little

that was original in his works." He considered him "too theoretical and not very correct." De la Bêche he greatly preferred. Of Verneuil he could not say too much in his praise. He considered him perhaps the best of all European geologists. Of Elie de Beaumont his opinion was not so favorable. He thought him "too speculative, and not so much to be relied upon for his opinions as Verneuil." Murchison he thought "a very good geologist, but not equal to De la Bêche." He agreed with Dr. Lea that the English geologists had too much neglected organic remains, and that they still felt the disadvantage of such neglect. He expressed great desire to have correct sections of that portion of the American continent which is embraced in the United States, that is, elevations from the sea as well as geological strata. He expressed great regret at not seeing more of Dr. Lea, but the fêtes attendant upon the marriage of the King's daughter rendered it necessary for him to spend much of his time at the court for the present. Subsequently Dr. Lea called on Professor Lichtenstein, to whom he had a letter of special introduction from Prince Maximilian. He showed Dr. Lea the museum in the university over which he presided. The collections here are very fine, particularly that in ornithology, there being none superior to it, unless it be that of the Academy of Natural Sciences at Philadelphia. In ichthyology, mammalogy, reptilia, &c., the arrangement was very good. The professor introduced Dr. Lea to some of his assistants, and very kindly offered his services. The day following he called, by appointment, at the university, when Professor Lichtenstein introduced him to Johannes Müller, to whom he had several letters. This eminent physiologist was engaged at the time on the embryology of the *Asteria*, and he showed Dr. Lea some of the plates which he had prepared for his forthcoming work.

In the zoological department he was shown the fluviatile mollusca brought from the interior of Africa by Mr. Peters. Dr. Lea observed among them a new *Iridina*, and two or three *Uniones*, as well as several *Paludina*.

Having letters from Professors Leonard and Haidinger to Professor George Rose, Dr. Lea called on him. He was the most eminent mineralogist of Berlin. He spoke most favorably of Professor Dana's Mineralogy, mentioning that he used it constantly. Of Professor Haidinger he said he considered him "the founder of the present success of science in Germany." Dr. Lea saw Professor Weiss, who presides over the chair of geology in the university, and after spending half an hour with him in his library he went over the fine collection of minerals belonging to the academy. The crystallographical department was very superior. A dodecahedron garnet was seven inches in diameter. Among the fossil bones, Dr. Lea observed a lower jaw of Dr. Godman's *Tetracaulodon*, with the foramen on the right side, quite two inches in diameter. It came from the United States. There were also beautiful

specimens of the "foot-marks" of the *Cheirotherium*, and a fine collection of meteorolites, second only to that of Vienna.

Dr. Lea called upon Professor Erenburg, who received him very kindly. He showed him many *Foraminiferæ* and *Polythelamiæ*. Some of them were in flint below the coal. On a part of the specimen there was a *Spirifera* similar to those of the Silurian formation. He also showed him some forms from Barbadoes which came from marl constituting a hill 800 feet high and some miles in extent. These forms he said differ from all others except those from Nicobar. He had chalk, limestone, and mud of rivers from nearly every part of the globe, and had made out nearly one thousand species. Having spent the morning with him, Dr. Lea left deeply impressed with admiration for a scientist who so ably carries out the object of his pursuit and who had made himself the leader among scientific men who have engaged themselves in his branch of science.

Dr. Lea saw Professor Ewald, who had recently returned from the Hartz Mountains. He was studying the paleontology of the lower strata, and showed him many specimens of fossil mollusca and particularly some from the Devonian which appeared to Dr. Lea to be too new for that formation. Among them were *Naticæ* with three dark bands of color. He also had iron ore with fossil shells, encrinites, &c., very much like the Danville beds which are Formation V of Rogers's survey; but he thought them to be immediately next below the coal measures, whereas Formation V is considerably lower than the coal, it being Formation XIII of the Pennsylvania survey. Dr. Lea then called on Professor Beyrick, at the suggestion of Humboldt, who told him that the professor was engaged on the papers of Von Buch, and would edit a complete edition of his works. He found Professor Beyrick to be an ardent student of geology, young and active. He was then examining the Tertiary formation of Prussia. He told Dr. Lea that he had found some particular forms which would connect the Eocene and Miocene so as to show the gradual "nuance" of these two masses.

He gave the geologists of the United States full credit for their activity. The "Mauvaises terres" in Nebraska interested them all, and he mentioned that Von Buch had commenced a paper on that subject a few days before his death. He wished Dr. Lea to attend a meeting of the geological society, which was to be held that evening, Dr. Lea having been made a member, but other engagements prevented his attendance. At Cassel Dr. Lea called on Dr. Dunker and Dr. Pfeiffer, both distinguished malacologists, having previously met them at Wiesbaden. Both are large contributors to our knowledge of the land and fresh-water mollusca of the whole globe. He went over the collections of *Unionidæ* of both gentlemen and named doubtful specimens. They were both very attentive, and Dr. Lea parted with these naturalists with great regret.

While at Frankfort he called upon Dr. Rüppell, having a letter from

Prince Maximilian. Dr. Rüppell had traveled much in Egypt and Abyssinia, and had brought together an immense collection of art and natural history for the museum. He showed Dr. Lea that the *Cheirotherium* tracks of the Hilberthausen Limestone are accompanied by Fucoids, and not by sun-dried sand cracks, as had been universally supposed. The specimen in the museum is so perfect that it does not admit of a doubt that these impressions are made by a plant. Dr. Rüppell had by his industry during ten years made the collection of the museum what it was. He expressed great interest in Dr. Lea's publications.

After spending a few weeks at Sewalbach, Dr. Lea and his family descended the Rhine and went to Amsterdam and Leyden. At the latter place Dr. Lea visited the botanical garden, which is one of the largest in Europe. He also visited the museum and saw Schlegel, who very kindly offered his services. The collection here in ornithology is very extensive, and was considered at that time equal to any in Europe. Dr. Schlegel showed Dr. Lea the eggs and a specimen of the extinct *Penguin*. It came from Iceland, and Dr. Schlegel said it was extinct since the last fifteen years. The collection of mollusca was very good. Those of the *Unionidæ* were badly arranged and incorrectly named. Dr. Lea made the necessary corrections, and arranged the whole family.

They subsequently went to the Hague, Antwerp, and Brussels. On his return to Paris he met Dr. Daubney, of Oxford, and had a long conversation with him on geological subjects. The doctor had very pleasant recollections of his visit to the United States ten years before, and particularly of Philadelphia. He informed Dr. Lea that Dr. Buckland had become "hopelessly insane," which was sad news to him. On a visit to a large manufacturer of china, who had three thousand five hundred men in his employ, he informed Dr. Lea that the best and largest part of his ware went to the United States; that without that market the business would be worth nothing. The watchmaker to the Emperor, of whom Dr. Lea purchased a fine watch, made the same remark. He found that all his scientific friends were out of town at this season, excepting Prince Charles Buonaparte and Boivin, whom he frequently saw. The former spoke of their mutual friend, Mr. George Ord, and Dr. Isaac Hays, for whom he had great regard. He spoke of the Academy of Natural Sciences of Philadelphia, of its great collection, that in ornithology "being the best in the world." In regard to the collection in Leyden, he "knew it better than any one else, having spent eight months over it." His own collection he had given to the island of Corsica, where they had recently formed a cabinet of natural history. Dr. Lea dined with him, on which occasion several naturalists were invited to meet him.

Dr. Lea frequently visited M. Boivin, who had a fine collection of mollusca, particularly those of fresh water; he was always kind and cour-

teous, a gentleman of the old school, pressing Dr. Lea to take specimens and books, which he assured him were duplicates in his library.

Dr. Lea went over his *Uniones* and corrected and rearranged them. M. Verreaux's great collection of natural history was very fine, having objects in every department for sale, and Dr. Lea procured there some new species of fresh-water mollusca. One of the brothers was absent twenty-seven years, spending most of the time in Africa in collecting for the Government, most of which was lost on the coast of France with all his manuscripts.

On a visit to the Jardin des Plantes he found many things he had not previously seen. It is a noble institution, but Prince Charles, in speaking of it, said it was "an anarchy."

On presenting a letter of introduction from Professor Dunglison to Professor Flourens, secrétaire perpetuel de l'Academie des Sciences, he was received most kindly, and told immediately, "You are too well known by your publications to need a formal introduction."

On leaving him after a long conversation on various subjects, Professor Flourens very kindly offered to introduce Dr. Lea to any one he wished to know among the scientific men in Paris. On parting, he asked Dr. Lea to meet him at the Institute the following morning to be present at a séance, saying that he would take care to give him a good place and would be glad to make him a correspondent of the Institute. Subsequently they met at the Institute, where he placed Dr. Lea near the president, in the seat for authors who had papers to read. The first read was very good, on "Morphism." Another "On the Doctrine of Chances," by M. Bonamie, was exceedingly clear and well read, but was objected to by another member in great heat, and much discussion took place. There were a number of communications by absent members, which were read by the secretary, M. Flourens. After adjournment, M. Flourens introduced Dr. Lea to Milne-Edwards, who expressed great regret that absence from town would prevent his seeing him again, as he was going in the morning to the Pyrenees. He was also introduced to Adolphe Brongniart, who made an appointment to meet him at the Jardin des Plantes. While conversing on the fructification in fossil ferns he was surprised that Dr. Lea had some from the Carboniferous formation, and observed that they were very rare. He also met Professor Chevreuil, the chemist, and M. Combres, the distinguished engineer. Professor Flourens, after the meeting, which lasted two hours, showed him the library, where he found M. Andresse, the librarian, who said they had many of Dr Lea's works, and would be very glad to be in possession of all of them. At the Jardin des Plantes he saw Adolphe Brongniart and Keiner, who went over the fossils and recent shells with him. He subsequently spent three hours with that eminent conchologist, M. Deshayes, and went over various genera of mollusca, especially the *Uniones*.

M. Deshayes agreed with Dr. Lea that the *Unionidæ* in Europe were

restricted to six or seven species, while in the United States they seemed to be almost unlimited.

Dr. Lea named those about which there had been any doubt, greatly to M. Deshayes' satisfaction. He showed him his manuscripts on the whole range of fossil and recent conchology, a stupendous work, which astonished Dr. Lea. It was the result of thirty years' labor, and arranged in a most convenient manner. It was written on cards about 3 by 4 inches. Of these there are forty thousand, and they are arranged alphabetically for the genera and then for the species. Each species has its whole synonymy complete with reference to author and page. Then with each genus there was a set of cards with the authors who have written on the genus, and these works are arranged chronologically. M. Deshayes promised Dr. Lea a copy of his manuscripts on the *Unionidæ*, which promise he fulfilled within a year.

On going to see M. Verreaux he showed Dr. Lea the manuscript of Prince Charles Buonaparte's new edition of his Ornithology, to which he (M. Verreaux) had added the synonymy, which is immense. Dr. Lea procured from M. Verreaux four recent *Terebratulæ*. September 5, 1853, he paid his last visit to the Institute. In the library he found M. Andresse, the librarian, who had made a complete list of all Dr. Lea's works from 1827.* In the secretary's room he found Professor Flourens, who kindly sent a messenger with him in order that he might "be placed within the square."

Here he found Cruvellier, Duméril, and Professor Owen. Dr. Lea was much gratified to meet Professor Owen, of whose presence in Paris he was not aware. The professor read three papers in French before the Institute: One on the invertebral column and the cranium, which he intended publishing in Paris; another of the papers was on the muscular and nervous systems of *Terebratula*, and there was also one on fossil *Chelonia*. Some good chemical and other papers were also read. Dr. Lea dined with M. Boivin, who told him of the fearful times during the revolution of 1830—"the three days." No one was permitted to go into the street. All had to remain in their hotels, the inhabitants of which clubbed their stock of provisions and did the best they could. If they had ventured into the street they would have been shot.

By appointment with M. Duméril, Dr. Lea met him at the Jardin des Plantes, where they found Professor Owen. After examining the collection of skeletons, where the gorilla was the chief interest, they went into the cabinet of fossil bones where there was a specimen of *Mastodon angustidens*, nearly complete.

Dr. Lea left Paris for London, regretting to part with many friends whom he never expected to see again. After remaining a few days in London he went to Hull, passing from the London basin of Tertiary into

*Afterwards Dr. Lea sent all which he published, until 1876, so that their copies are complete.

the chalk, greensand, oolite, lias, kuyper, and bunter. At Hull the annual meeting of the British Association was convened, Mr. Hopkins, the geologist, presiding. Here he met many friends; among them was the Rev. Mr. Scoresby, so well known for his Arctic voyages and his discoveries in magnetism, whom he had entertained when in Philadelphia, six years previously.

At the dinner table Dr. Lea found Rev. Mr. Sedgwick and Dr. Daubeny. At the section on geology Professor Phillips lectured on the geology of York in a very able manner, and much discussion took place, Mr. Sedgwick being in the chair. Dr. Lea found Mr. Sedgwick a good deal changed, but occasionally he showed his former vivacity and brilliancy. Mr. Charlesworth read his paper on fossil sponges, which was much commented upon. Professor Strickland, who had succeeded Dr. Buckland, in Oxford, as the lecturer on geology, invited Dr. Lea to dine with the Red Lion Club, a very select society, which met every year, at the time and place of the meeting of the British Association, and every third Monday in London. No one could be a member who had not written an important scientific paper. At the meeting of the section Dr. Lea saw Professor Johnston, author of Agricultural Chemistry, whom he had met in Philadelphia, Professor Harkness, and other friends. Afterwards, at the dinner at the Red Lion Club, where, being a stranger, he was received with honors, he had the pleasure of meeting Gould (the ornithologist), Latham, McAndrews, Redfern, and others, whose acquaintance he was glad to make. The dinner was well served, and Dr. Lankaster, presiding, kept the members in good humor by his wit. After the Queen's health was drunk Dr. Lea was complimented and had to make an acknowledgment. Professor Johnston related to the club that "on his arriving at Philadelphia, he had called on Professor Hare, who invited him to the meeting of the Wistar Association,* where he met about two hundred gentlemen, and was introduced to the best science of the city. Here Dr. Hare introduced him to Dr. Lea, and he had been entertained by him." Having stated so much, Dr. Lea was induced to give an account of the Wistar Association, so well known in the United States. Dr. Lea was at a breakfast given by Mr. Frost, president of the local committee. Here he found the Rev. Dr. Scoresby and wife; Mr. Jordan, the former editor of the London Literary Gazette; S. Warren, esq., so well known as a writer; Sir William Hamilton, Mr. Stokes, the astronomer of Cambridge; and many other distinguished men. At a meeting of the geological section, where the Rev. Mr. Sedgwick presided, Dr. Lea was on the platform with him and Mr. Strickland. A young man, unknown to either of them, was prepared to read a description of the gold mines in Australia. He had not proceeded long before Dr. Lea saw Professor Sedgwick showing signs of restlessness.

*The Wistar Association was formed only of the members of the American Philosophical Society.

The fact was, the young man was ignorant of the subject of geology altogether, and pretended to instruct about two hundred intelligent persons present. Professor Sedgwick could not contain himself long, and turning his eagle eye upon him, he asked if he really meant to say so and so; to which he answered that he did. "Then I tell you," said the professor, "that you know nothing of the subject of geology." "Oh, if you say so, I will stop," was the reply, and doubling up his paper he disappeared entirely.

At a lecture (in the great hall) on photography, delivered by Mr. Hunt, Mr. Hopkins, the president, was in the chair. The whole was excellent, with admirable illustrations, diagrams, &c. Dr. Lea was placed on the platform near the president and Colonel Sabine.*

Subsequently Dr. Lea went with an excursion party to Beverly, where he visited the fine minster with Sir William Hamilton, and afterwards Flamborough Head with a large party of geologists and ladies, altogether some eighty, who went to hear Sedgwick and Murchison explain the geology of this high cliff. Among the party were Sir William Hamilton, Colonel Sabine, Professors Johnston, Redfern, Charlesworth, and others. Returning to Beverly, the party dined by invitation with the corporation. The mayor placed the lady mayoress and Dr. Lea on his right, Professor Phillips on his left.

Before leaving Hull Dr. Lea made an appointment with Professor Strickland to see him in Oxford, or at Tewkesbury, where he resided; but the following day he met with that terrible accident which deprived England of one of its ablest geologists.†

Arriving in London Dr. Lea called on some of his scientific friends. Dr. Laukester he found engaged in his microscopic investigation of infusoria of fresh and salt water. He had plants and animals in an aquarium where the water was never changed, the equilibrium being thus perfectly preserved. Dr. Lea called upon Lovel Reeve, with whom he had previously corresponded. He reminded Dr. Lea of their first meeting, in 1832, when he waited on Dr. Lea in a grocery shop on Ludgate Hill. The latter saw, when passing the shop, some shells in the window, and, being attracted by them, went in. He found some new *Uniones* and other desirable specimens, of which he purchased a considerable number. Now Mr. Reeve was the owner and editor of the London Literary Gazette, and Iconography, both of which were entirely successful as a profitable investment, and he had reputation as a man of science, being connected with some of the scientific societies of London.

On a visit to Sir Charles Lyell, he informed Dr. Lea of some discoveries which had been made in the coal formation of Nova Scotia, a bone of a new animal, which Professor Wyman had called *Dendrerpeton aca-*

---

*Sir Edward Sabine, since general, and president of the Royal Society.

†He was struck by a locomotive coming out of a tunnel, where he was making a sketch. His wife was the daughter of Sir William Jardine, Bart., the ornithologist, who had previously given Dr. Lea an invitation to Jardine Hall.

dianum; also a fossil pupa, this being the first instance of a land shell being found in the coal formation. He also informed him that a jaw-bone had been found in the Red Sandstone of Prince Edward's Island, which sandstone he considered equivalent to the Red Sandstone of Connecticut and Pennsylvania. He lent him a rough drawing of the jaw by Mr. J. W. Dawson. Sir Charles also showed Dr. Lea drawings of a cetacean, which had been described by Dr. Leidy, from the Greensand of Mullica Hill, N. J.; and the drawings of the vertebra of another, said to be from the Greensand of Greenwich, N. Y. But Sir Charles was satisfied that the latter was not from Greenwich, N. Y., and was therefore not to be considered; but there remained the Mullica Hill specimen, and a tooth, which Mr. Wetherill, of Burlington, N. J., had given Prof. H. D. Rogers, but which, when Sir Charles saw the professor, was packed up, and therefore could not be seen. Sir Charles remarked that this matter of a cetacean being discovered in the chalk formation was of great interest, as there never had been one found so low in the strata. Some days after Sir Charles called on Dr. Lea, and they again talked over the subject of the bones of the Greensand formation of New Jersey, and the jaw of the Red Sandstone of Prince Edward's Island. He mentioned that he had written to Dr. Leidy before leaving America in regard to it, but he was not sure that the box containing the bone had ever reached New York. He had ordered it sent to the Clarendon Hotel, where he was stopping, but it had not arrived before he left there. He expressed great desire that the fossil bones from the Greensand of New Jersey should be collected for the Academy of Natural Sciences, and regretted that the tooth, which had been sent Professor Rogers, had been lost, as it was of great importance to the geologist of the State of New Jersey. Sir Charles told Dr. Lea that Professor Rogers now could not remember anything about it. He said that a drawing was made of it by Mr. Conrad, and that it was in the form of a *Mammifer;* that Mr. Lesueur had seen it, and that it was similar to a seal's. They also talked over the New Red Sandstone of Nova Scotia, which Sir Charles thought to be the equivalent of that of Connecticut, New Jersey, and Pennsylvania. The "foot-marks" (*Sauropus primævus*) from near Pottsville, Pa., discovered and described by Dr. Lea, was a very interesting subject to Sir Charles, who examined a specimen of the rock, which Dr. Lea had with him. It surprised him from the beauty of the rain-drop pits which covered the specimen, and he expressed great satisfaction on seeing it. He was surprised to find it was so low down in the series. Indeed, he seemed to have taken Professor Rogers's opinion, and as he said, quoted from that. Dr. Lea then read a few paragraphs from his paper to show him exactly how many feet (1,700) below the conglomerate of the Coal Measures these "foot-marks" were found, and on reading the quotation from Professor Rogers that these "'foot-marks' were but a few hundred feet below the Coal Measures, and only a single leaf in the creation," he emphatically

said, "Why, it is two whole volumes!" Sir Charles did not hesitate to express his opinion that as they were certainly in Mr. Rogers's Formation XI, and the coal measures was his Formation XIII, "Professor Rogers had lessened the importance of this discovery because he had not found it himself."

Sir Charles then took some notes of the conversation, and told Dr. Lea he would read over his memoir carefully and set the matter right in his next edition, which was going through the press.

Subsequently Dr. Lea and family went to Cambridge, where Professors Sedgwick and Babbington had invited him when at the meeting at Hull, but the former was absent; the latter he found deeply engaged over his favorite plants. He very kindly left the plants to call upon the ladies, and they all went to visit Saint John's College and other places of interest. Saint John's is the largest building, having four courts, and is altogether a noble structure. At Trinity College the collection of fossil remains chiefly made by Professor Sedgwick is very fine, and there is a magnificent specimen of *Plesiosaurus*, which is entirely complete.

When at York Dr. Lea called on Professor Phillips, who received him very kindly and made himself very agreeable. While conversing on geological subjects Professor Phillips received his mail, which informed him of his appointment to the chair of geology at Oxford, made vacant by the death of Professor Strickland, unfortunately killed on the railway. At Oxford Dr. Lea called on Dr. Daubenay, who unfortunately was absent for some days, but left directions with his gardener and servants to receive Dr. Lea and his party, and they were very attentive. The botanical garden was particularly interesting, containing among other fine flowers, the *Victoria regina* in full leaf and flower, the flower being sent to Dr. Lea's party in the evening. Their stay was made very pleasant in this grand old city, so celebrated for its libraries, containing many ancient and beautiful manuscripts, some of which were eight hundred years old, and beautifully illuminated. The Bodleyan and Radcliffe libraries are well known throughout the learned world. The librarian of the latter, when Dr. Lea wrote his name in the visitors' book, told him they had his works, and politely referred to them.

On the way to Bristol Dr. Lea found in the car a gentleman with whom he entered into conservation, and soon learned he was professor of mineralogy at Oxford. He gave his card and Dr. Lea, observing the name Maskelyne, asked him if he was of the family of the astronomer. He answered, "Yes; his grandson." He added that he had often been asked that question by Americans, but never by an Englishman. He was evidently much gratified with the recognition of a great name by the Americans. He politely said Dr. Lea's name was not unknown to him, and expressed pleasure in meeting him, regretting he had not seen him at Oxford, where he had met with Professor Silliman and other men of science from America. He said the best work on mineralogy

was written by an American, Professor Dana, and that he used that work as his text-book. On parting he very kindly told Dr. Lea that he would gladly be of service to any of his friends who should visit Oxford.

Dr. Lea visited the remarkable ancient remains of Stonehenge, supposed to be of Druidical origin. The formation here is the Chalk, while the huge stones, of which there are ninety-four, are either Sandstone or Archaic, except the "Slaughter stone," which is slate, and said by Dr. Buckland to have been brought from Wales. The larger stones are said to weigh 45 tons. The geological structure from the Coal at Bristol to this locality is Lias, Oolite, and Chalk.

Returning to London Dr. Lea visited the Museum of Economic Geology,* but found both his friends De la Beche and Forbes were out of town. Mr. Bailey, assistant to the ordnance survey, very kindly offered his services, and took him to the cases he wished to see. They went over the collection of the New Red Sandstone formation, which Dr. Lea found to be equivalent to that of Pennsylvania. In the private room Mr. Bailey introduced Mr. Morris, the well-known author of the "Catalogue of British Fossils." He mentioned that Dr. Mantell had invited him the previous year to meet Dr. Lea, but he could not come, as he had an engagement. He pressed Dr. Lea to visit him at Kensington. They went over the mollusca brought by the Rattlesnake in her voyage to South Africa, &c.

Dr. Lea met here Dr. Price, professor of chemistry in the Royal College, whom he had previously seen at Hull, at the late meeting of the British Association. He invited Dr. Lea to dine with the Red Lion Club the following Thursday, which invitation was accepted. A few days after Dr. Lea went again to the Museum of Economic Geology, taking with him some specimens of *Unionidæ* and some volumes of his works which he had promised. He was glad to find that Sir Henry de la Bêche had returned, and he expressed great pleasure at seeing Dr. Lea again, and thanked him for the valuable present which he had made to the institution. They talked over the New and Old Red Sandstones, and Dr. Lea explained the position in the series of the "foot-marks" (*Sauropus primævus*) found by him near Pottsville, Pa. Sir Henry said that "the thing was perfectly clear," and "it was a capital hit." As to whether the formation was Devonian or not, that was a different question; it was fixed in Professor Rogers's No. XI,† and that was the point." Sir Henry observed that there was great difficulty about these Red Sandstones. In speaking of the New Red Sandstones he said they were entirely unsettled as regarded the British locality, that the strata were much altered after deposition by subsequent denudation, and the present deposits were therefore much confused. He made Dr. Lea a diagram by which it would appear difficult to distinguish one member of the Permian from another.

---

*Since changed to Royal School of Mines.

†See page 70.

Dr. Lea called on Mr. Buchanan, the American minister, and had half an hour's conversation with him. Among other things he said that he was impressed with the idea that the English did not like us Americans. Dr. Lea told him that at Rome, Major Cass, American minister, had told him the same thing, but that it had not been his impression in his intercourse with English gentlemen.

Dr. Lea went again by appointment with Sir Henry De la Beche to the Museum of Economic Geology. He took with him some rare specimens of *Unionidæ*. Sir Henry and Edward Forbes were delighted to see the *Unio spinosus*, of which there was a good specimen.

Again the New and Old Red Sandstones were talked over. They both told Dr. Lea that the Magnesian Limestone of Riley and Stutchbury was very doubtful as to its true position, but the matter would be worked out by the survey. Professor Forbes and Dr. Lea went over the Devonian fossils from Ireland which had been recently received at the museum. Among these was a specimen resembling an *Anodonta*, of which he wished to have Dr. Lea's opinion. After a close examination, he agreed with the professor and pronounced it a true *Anodonta*. In one specimen the dorsal line was complete, and presented the exact characters of that genus. The professor expressed himself much pleased to have his opinion "confirmed by the best authority on the subject of fresh-water mollusca." They then examined some of the *Uniones* from the Middle and Upper Eocene. There were two distinct species, having their pearly nacre remaining, but they were much broken. The beaks in some specimens showed the undulations very perfectly, and the teeth were nearly perfect. The cardinal teeth differ from those of existing species in having the posterior lobe large, while the anterior is depressed and almost obsolete. Subsequently Sir Henry De la Beche sent Dr. Lea the six volumes of the Geological Survey of Great Britain, together with his acknowledgment of favors on Dr. Lea's part, Dr. Price called on Dr. Lea to take him to dine with the Red Lion Club, where he met Gould, Lankaster, Forbes, Lyell, Woodhouse, and Frances, editor of the Philosophical Magazine, McDonald, professor of natural history in the University of St. Andrews, Douglas Jerrold, and some dozen others. A moderate dinner and little wine was the rule of this club. Prof. Edward Forbes presided at the dinner, and the evening was pleasantly passed, enlivened by his ready wit and that of Douglas Jerrold. Adjourning at 12 o'clock, Dr. Waterhouse and Professor McDonald kindly walked home with Dr. Lea, although the distance was very great.

At the British Museum Dr. Lea spent a couple of hours with Mr. Waterhouse and Mr. Woodward, the author of "Recent and Foreign Shells," who had the departments of fossil bones and fossil mollusca under their charge. The latter showed Dr. Lea some beautiful specimens of the *Rudista*, of which he had cleaned out the interior, so as to show the teeth and, in both valves, the muscular cicatrices, the cavities, &c. Dr. Lea saw at once that they proved these genera to be close

to *Chama*. The specimens of *Discera* were exceedingly beautiful and some of them very large. Dr. Lea was shown the complete specimen of Murchison's fossil fox. The collection of fossil Mollusca is very large, and arranged with great skill by Mr. Woodward. He asked Dr. Lea about the *Acostea*, mentioning that he had read his paper with great interest.

Dr. Lea explained the growth of the shells, and mentioned that while in Paris he had found the original specimen of *Mulleria*, described by Baron Ferussac, in the cabinet of Delessert. It was described by Ferussac in 1823, and lost sight of until Dr. Lea found it in the drawer, as he suspected, mixed with the *Etheria*, which exteriorly it resembles. Mr. Woodward then mentioned that Dr. Gray, of the British Museum, had published his notice assimilating *Acostea* with *Mulleria* after he had received Dr. Lea's paper. Dr. Lea told him he never had any doubt of it, but he was very glad to know the fact from him. Dr. Lea had sent his paper to Dr. Gray in November, 1851, as well as to many others in London, and Dr. Gray must have seen it a month or two before he published his notice, in February or March. Mr. Woodward then said he knew personally that Dr. Gray had Dr. Lea's paper before he published his notice, and that "it was just like Dr. Gray, who was quite accustomed to appropriate in this manner the work of others."

On a visit to the rooms of the Geological Society Dr. Lea met T. Rupert Jones, secretary of the society and author of many valuable papers on *Foraminifera*, *Estheria*, &c. He showed Dr. Lea the manuscript of a paper by Trimmer on the Wealden up to the Diluvian, which exhibited a very curious case of denudation. The paper appeared in the Quarterly Journal of the Geological Society.

They talked over the "foot-marks" of the Red Sandstone near Pottsville, Pa., a plaster cast of which Dr. Lea had sent to the Geological Society. Mr. Jones showed him a fine collection of fossil *Unionidæ* made by Mr. Beccles from the Wealden. Many of the specimens were very large and much like those Dr. Lea had examined carefully and made notes of for Dr. Mantell. They were generally casts. He subsequently went, by appointment, with Professor Owen, to the College of Surgeons.

They discussed many of the fine specimens of fossil remains of animals, and the *Glyptodon* was particularly interesting from its enormous size, and for its thick, bony covering being nearly perfect. The specimens of *Mylodon* and *Megatherium* were very fine, and the great *Dinornis* nearly perfect. The cranium of the *Troglodites gorilla* was examined and commented upon, a perfect specimen having been seen by them at the Jardin des Plantes in Paris. Professor Owen showed Dr. Lea the skeleton of a man who had the shaft of a vehicle run through the ribs on both sides, and yet the man lived for twelve years afterwards. The professor expressed a great desire to visit the United States, and said he would deliver a course of a dozen lectures

there if he could get leave of absence for three months from his duties at the College of Surgeons. He very kindly pressed Dr. Lea to visit him at Richmond Park, expressed great pleasure at meeting him, and hoped to hear from him when he returned to America. Dr. Lea spent a morning with Mr. Sharpe, the eminent geologist. Among other subjects the *Sauropus* in the Red Sandstones of Pottsville was fully discussed to Mr. Sharpe's satisfaction. The fossils of the New and Old Red Sandstones were the subject of much conversation, and he told Dr. Lea that "there was much doubt as to the locality where Dr. Mantell's *Telarpedon elginense* was found." * * * "That the rocks of Elgin were absolutely Old Red Sandstone, but the specimen was found farther north, near the coast where New Red Sandstones were now believed to exist." He agreed with Professor Harkness "that it was very doubtful if the age of the *Telarpedon elginense* was what was assigned to it," and that he was inclined to a different opinion. If this be the case, the *Sauropus* will prove to be the oldest air-breathing animal yet found. Mr. Sharpe said he "found it very difficult to assign to its proper age this anthracite coal-field;" he was "inclined to believe it different from that of the coal-fields of Northumberland and Durham." He states that it was his opinion "that many coal-fields, which had been thought to be of the same age would be found to be different." He showed Dr. Lea a collection of *Uniones* from the Wealden, one of which was remarkable for an angular umbonial slope somewhat like *Margaritana arcula*, which Dr. Lea had described. Some of his specimens were purchased at the sale of Dr. Mantell, who, it will be remembered, had died while Dr. Lea was on the continent. Many of these specimens had Dr. Lea's labels, which he had put on the previous year when in London, he having gone over the whole of the collection very carefully. Mr. Sharpe gave him a specimen of *Pachyodon*, which is a very singular genus, much resembling the *Unio*, but it comes from salt water. He also kindly gave him some of his papers on the Red Sandstones.

Dr. Lea called on his old friend, Charles Stokes, the geologist, whom he found very weak and much exhausted. He reclined upon the sofa and conversed about Dr. Lea's former visits to him, Dr. Buckland, &c. He had in his hand a proof of the impression of a new map of Captain McClure's discoveries in the northern regions, in which Dr. Lea was much interested, having written a long paper on the Northwest Passage many years previously. He expatiated very much on the subject, and agreed with Dr. Lea that it would be useless to pursue the discovery, as further search could not be likely to benefit any one. Visiting the Museum of Economic Geology again, Dr. Lea took some fine specimens of *Unionidæ* for the Institution. He found Sir Henry De la Beche, with whom he had a long conversation on this family, in which he gave him an account of his divisions of it. Sir Henry expressed himself greatly obliged, and told Dr. Lea he had "listened to an excellent lecture." He entirely agreed with him in the manner of placing the specimens in a grooved slat, and

giving the major axis the horizontal line, and he fully appreciated the value of the ellipses, for, as he observed, "these were constants." Calling on Dr. Carpenter with a letter from Dr. Dunglison, he was told, very kindly, that Dr. Lea required no letter to him. Many branches of natural history were talked over, *Foraminifera*, &c. He showed Dr. Lea some fine *Orbitellæ*, with many varieties which had been described by D'Orbigny and others as distinct species. Of these he had made large drawings, and showed conclusively that the number of species must be greatly diminished. He also showed Dr. Lea his prepared specimens, beautifully arranged on glass, with their names written with a diamond point. The structure of the *Pinna* was finely illustrated by cross and longitudinal sections showing the cells with the basement membrane. The *Terebratulæ* were particularly beautiful, the foramina being perfectly displayed. In the *Unio* the structure is very different from that of the *Pinna*, the layers of the latter being imbricate. The epidermal matter, or more properly the periosteum, is deposited without any structure, while in the *Terebratula* it is plainly seen to have beautiful openings, which really seem to have opercula. The structure of *Echinus* is very different. Sections of spines of different species differ very much. The cross-section has somewhat the appearance of the cross-section of a tree, but the tubular form differs, so that in the *Echinus* it looks like lace-work. Afterwards they went over the *Uniones* which Dr. Lea had taken him, noticing more particularly the undulations of the beaks and the different ages. He was much interested in these differences, which he had never before observed. He invited Dr. Lea to dine with the Philosophical Club, composed of forty-seven working members of the Royal Society, the number of members being restricted. But Dr. Lea, having been previously invited to the dinner by Professor Forbes, said he would meet him there.

Dr. Lea returned a visit from William J. Hamilton, secretary of the Geological Society, whom he had met at the congress of German scientists at Wiesbaden the previous year. He found him engaged in examining a collection of mollusca and fossils sent by the well-known Rajah Brookes from Borneo, which were particularly interesting. He gave to Dr. Lea a *Unio*, a *Cyrena*, and a curious *Cyclostoma* which had spines. A few days afterward he dined with the Philosophical Club, where Sir Roderick Murchison presided. He requested Dr. Lea to take the seat on his right. The distinguished members present were Lyell, Carpenter, Forbes, Graham, Wheatstone, Sharpey, Sabine, Hoffman, Miller, Crosse, Hooker, Hopkins, &c. The president asked the secretary if he had anything to bring before the club. On rising the secretary said, "There is a gentleman present who, though a foreigner, can hardly be considered a stranger," and he hoped that Dr. Lea had something new which he could communicate to them. Dr. Lea then made some remarks on the two Saurians, descriptions of which he had published, relating to their position in the strata, one in the New Red Sand-

stone and the other below the Coal Measures in Pennsylvania Survey Formation No. XI. The remarks were attentively listened to. Sir Charles Lyell then stated his impression in regard to both. He gave Dr. Lea full credit for being the first and only one who had yet observed an air-breathing animal in so ancient a rock as that in which the *Sauropus primævus* occurred. He further stated that the *Clepsysaurus pennsylvanicus* was the first discovery of bones in the New Red Sandstone, although since Dr. Lea's discovery a jaw of a similar animal had been found, and he said he was entirely disposed to accord to the latter the credit of these two discoveries. Sir Roderick asked if any other gentleman had anything to communicate, to which Colonel Sabine answered that he had a curiously-shaped bottle picked up on the north shore of Siberia, and sent to him from St. Petersburg. He said that he thought that it had come through Bering Straits from Japan. Dr. Lea, having paid some attention to the voyages and currents of the Arctic Ocean, observed that that was certainly the best solution of the subject; that all the voyagers from the early Danish settlements to the present time demonstrated the course of the currents. After the discussion of other subjects of minor interest, the members divided into groups, and Dr. Lea had an interesting conversation with Sir Roderick, Dr. Carpenter, and Professor Forbes upon various matters of science. Sir Roderick expressed his regret in parting that he had not seen more of Dr. Lea, but that he had been absent during most of the time. Dr. Carpenter spoke of their mutual friends, Drs. Dunglison, Jackson, Wood, and Meigs. He said on parting that he was very desirous of visiting the United States, if anything offered by which he could increase his income; that a professorship in the College of Philadelphia would be very acceptable. Professor Sharpey, of Edinburgh, spoke of the excellence of Wood & Bache's works.

Calling at the Museum of Economic Geology, Dr. Lea found Sir Henry De la Beche busily engaged. He expressed much pleasure at seeing him again. While conversing with him a very old gentleman came in whom he introduced as Mr. Weaver. He was entirely deaf, and Dr. Lea had to write his part of the dialogue. He was ninety-one years old, was perfectly erect, and had a remarkably fine face. Dr. Lea was very much pleased to see him, for he was of the old school of science, and was a fellow-student with Humboldt. He was kind enough to say that he had heard in the hall that Dr. Lea was in the private room with Sir Henry, and he could not refrain from coming "to shake hands with one who had done so much for American science." He was in the early part of this century among the leading men of science in England, and was deeply engaged in the great battle of "Neptunist and Plutonist," which was waging at that time. He had understood that Dr. Lea had given some rare *Uniones* to the museum, and expressed a desire to see them. Dr. Lea went to the cases, and explained to him some of the different species which had excited much

interest in London, particularly the *Unio spinosus*. In taking leave of Sir Henry a second time he again expressed his desire to serve Dr. Lea at any time, to procure for him any specimens or books which could be had. He requested Dr. Lea to send any of his friends to him, and taking his hand, said, "You must come again, and God bless you." It was with extreme regret that Dr. Lea parted with him. In the course of conversation about the leading men of science in England, among others Sir Roderick Murchison, he said that he was "a most valuable man in society, and a great promoter of science; that his connection with men high in position was very useful to science." Sir Henry said, "he never flinches from pushing science forward in places which otherwise it might not reach," adding that he was "full of science and very industrious." Dr. Lea went to the rooms of Professor Forbes, whom he found engaged in preparing some specimens of fresh-water and land mollusca from the Tertiary and Oolitic formations for him. In taking leave of Dr. Lea he expressed his regret at parting, and offered his services in every way that Dr. Lea would command. Mr. Bailey united with him in offering services. Sir William Hooker had been exceedingly kind to Dr. Lea's family, inviting them to Kew, where they spent a day with him, and saw many things to which the public were not admitted. William J. Hamilton, president of the Geographical Society, and Mr. Morris, the geologist, left several papers and offered services to Dr. Lea, expressing regret at his leaving London so soon. Before sailing from Liverpool Dr. Lea called to see Mr. McAndrews, who had made a large collection of mollusca, chiefly by voyages in his own yacht among other seas, and especially in the Mediterranean for seven months. He gave Dr. Lea many fine specimens, and some *Uniones* which were new to him, one of them from New Zealand. At Liverpool he met his old and kind friend William Rathbone, esq., who pressed him and his family to make their home with him at Green Bank, in the neighborhood of Liverpool. While there he invited several gentlemen to dine, among whom were Dr. Lea's old friends, Mr. Nuttall, the naturalist, and Mr. McAndrews, the conchologist. He was very glad to see the former, who still possessed that cheerful temperament and great fund of information which rendered him always a desirable companion. He told Dr. Lea at parting that he might see him in Philadelphia next year.

While at Liverpool Dr. Lea met at the hotel his friends, Colonel Powel, of Philadelphia, and Major Porter, of Georgia, who, he was glad to find, were to sail with him on the steamer Baltic. On November 2 Dr. Lea and his family went on board the fine New York steamer Baltic, in a gale in which no other vessel ventured out. Being unable to go down the Channel, the steamer laid her course round the north coast of Ireland. At the end of twelve days, through most terrific gales, the good ship landed her passengers safely at New York. Dr. Lea left behind him, with great regret, many kind friends, both in the social and scientific world, on the continent and in England.

CHAPTER V.

RETURN TO PHILADELPHIA.—EXTRACTS OF LETTERS ON SCIENTIFIC SUBJECTS.—CONTINUED RESEARCH.—PRESENT OCCUPATIONS.

Dr. Lea arrived in Philadelphia November 14, 1853, where he found the accumulation of correspondence and specimens during his absence to have been enormous. On these he set to work with vigor, but the inflow continued in such a regular stream that he was unable to diminish the material on hand, and some twenty-five years afterward, when he was suddenly taken ill in California, his cabinet was overcrowded with material awaiting his investigations. Many new correspondents, particularly from the Southern and Southwestern States, sent him collections of new mollusca, requesting him to name those that were new, and give them the names of all the species. Among these was the Right Rev. Stephen Elliott, bishop of Georgia, who, above all others, most abundantly supplied him with the mollusca of that State. The Bishop at that time was personally a stranger to Dr. Lea, but the beauty of the *Unionidæ* of his State had attracted his attention, and he applied to him requesting the favor of his correspondence. As Dr. Lea had been desiring a correspondent in Georgia for many years, this was gladly accepted, and it resulted in a warm friendship which lasted until the death of the Bishop. Shortly after this correspondence commenced he visited Philadelphia to attend the convention of the Protestant Episcopal Church, when Dr. Lea first made his personal acquaintance. He was enthusiastic in his pursuit of this branch of natural science, and told Dr. Lea in parting that he would have "every nook and corner of Georgia searched for him," and that he "would keep him busy for the next eighteen months in describing new species." This promise was more than fulfilled, and Dr. Lea was nearly three years occupied almost exclusively in describing and publishing Georgian species, one of the most beautiful of which he named *Unio Elliottii*, in honor of the Bishop. He induced many of his friends from distant parts of the State to collect specimens and send them direct to Dr. Lea. Mr. Couper of Darien, Mr. Hallenback and Dr. Boykin of Columbus, Mr. Postell of Saint Simon's Island, Dr. Stewardson and Mr. Plant of Macon, supplied a number of new species, and had their names given to new *Uniones*. The Bishop, when visiting distant parts of his diocese, where the mollusca in the small streams of the hill country differed from those of the broad rivers of the lowlands, collected specimens which generally proved new. From time to time for many years he sent Dr. Lea the included soft parts of

the animals, as may be seen in his acknowledgments, where the species are described in the "Contributions" through many years of publication.

On Dr. Lea's return home he found that Mr. Conrad had published a "Synopsis of the family of Naiades of North America" in the early part of the year, which was full of errors both of date and facts. These were all stated in Dr. Lea's "Rectification,"* published immediately on his return, in order to correct any false impressions they might have given. He likewise found that Mr. Say had also published a short list of the species, in which he differed much from Mr. Conrad, but he did not give Dr. Lea a single species. Subsequently Judge Tappan, United States Senator, who took so much interest in the Western *Unionidæ*, told Dr. Lea that Mr. Say had expressed great regret at the course he had taken against Dr. Lea. Dr. Kirtland, State geologist and zoologist of Ohio, wrote him a letter in the year 1853, in which he says:

> Your "Observations on the genus" show that you are still actively engaged in that interesting subject, but your new edition of the Synopsis is to me still more interesting. It forms a perfect hand-book for the naturalist who would investigate this inviting department.
>
> Twenty-five years since I was laboring with the Mahoning River shells, aided by Barnes's article in the sixth volume of Silliman's Journal; two numbers of Say's American Conchology, and his article in Nicholson's Encyclopedia. What an insight into their arrangement would your synopsis have rendered! Now, my good sir, allow me to urge you to go on, and accomplish what no one else can do, publish a revised edition of all your shells and their descriptions. This would place the subject before the scientific public and arrest the attempt of foreigners to seize upon the credit which belongs to you. Such a work would also be forever invaluable as a standard of reference.

In a previous letter Dr. Kirtland writes that he is particularly pleased with Dr. Lea's arrangement in the synopsis and will follow it in his report to the State. "It is altogether preferable to anything of the kind that has come before the scientific public."

In fact Dr. Lea had intended to publish a complete work on the *Unionidæ* of the United States, and had informed Professor Owen previous to his leaving London of his intention, and that he was willing to devote three years' time and $5,000 to its accomplishment. Having a good lithographer at command, he had two quarto plates made of the old and young of *Unio multiplicatus*, together with the embryonic form. But new species came in so fast from various parts of the world, and particularly from numerous friends of the Western and Southern States, that it precluded his doing more than describing them. Only a few proof copies of these fine plates had been struck off when a fire took place in the lithographer's establishment, and they were entirely destroyed. Dr. Lea was constantly occupied with his scientific researches, and continued his publications in the Proceedings and Journal of the

* This was read before the Academy of Natural Sciences of Philadelphia, and published in its Proceedings.

Academy of Natural Sciences, to which he was a constant contributor for more than twenty years, until 1877, when a sudden illness, which overtook him in Southern California, prevented his usual activity. He was still able, however, to continue adding to his vast collection, through the kindness of friends and by purchase, of fine specimens of minerals, particularly *quartz crystals*, every specimen of which he has examined with the microscope, and described on the label. The inclusions, and markings on the planes of each, when important, are drawn and stated.*

It will be seen by looking over his bibliography that after his return from abroad he was engaged in other branches of natural history. Biology and paleontology claimed his attention. The embryology of the *Unionidæ* was treated in an important memoir in 1858,† in which he gave descriptions and figures of thirty-eight species, accurately delineated by himself and formed into groups. Some of these species present the most singular and interesting microscopic forms, showing characters which Poli, Carus, and Pfeiffer, in the few which they had given, had overlooked.

Among other works he published in 1854 his elephant folio edition of "Foot-Marks," near Pottsville, which as a specimen of the typographic and lithographic arts has no superior, and the importance of the discovery of the "foot-marks" will be understood by a few extracts from the many letters he received on its publication. The following are from Professor John Phillips, of Oxford (of the chair of the celebrated Dr. Buckland), from Rev. Adam Sedgwick, and other friends:

OXFORD, *November* 6, 1855.

* * * I am greatly delighted with the admirable drawing and description of the foot-prints which you have kindly presented to me.

It is unique in the beauty of the execution and characteristic of the generous spirit which is so common among your countrymen, so far as I know them by their welcome visits here.

Pray send over as many of your friends as you can to maintain amity between Old and New England. * * *

JOHN PHILLIPS.

CAMBRIDGE, *April* 13, 1856.

MY DEAR SIR: I have this moment received your very kind letter, for which I return you my best thanks, and I am very grateful to you for the work to which you allude, "The Fossil Foot-Marks."

My health is at present anything but good. I am the victim of suppressed gout, which destroys my power of work, and makes even an ordinary task irksome to me. I will write immediately to my London publisher and request him to send you the second fasciculus of the Cambridge work through the agent of the Smithsonian Institution, my friend Rev. H. Stevens. My head is in too much confusion for any enlarged discussion, but I agree with you about the difficulties of the Old and New Red Sandstone.

---

*Prof. H. Rosenbusch says in his Mikroscopische Physiographie der Wichtigen Mineralien: "Dr. Lea was the first in America to enter into 'microscopic mineralogy.'"

†Journal of the Academy of Natural Sciences, Philadelphia, 1858.

My belief is that we shall in the end have to put the Old Red Sandstone of England in the same chapter as the upper or true English Silurian group. The Permian, Pomfret, or Magnesian limestone series (the Zeckstein of the German) is physically better related to the Triassic groups than to the Carboniferous, though the fossils seemed to point the other way.

I am now seventy-one years of age, and bad health makes me unfit for hard field-work.

I am ashamed to send you such a shabby letter; but I wish not to miss the early post of this day in order that I may correct the mistake or laziness of my publisher.

I assure you that I am with great respect, my dear sir, very truly and gratefully yours,

A. SEDGWICK.

BOSTON, *May* 14, 1855.

* * * Your magnificent work on "Fossil Foot-Marks," I have this day received, and have already distributed a number of the copies. The honor you have done me in dedicating to me so noble a work is one of the most gratifying circumstances of my life, though I cannot feel worthy of it. Coming as it does from one who has so long and so ably distinguished himself by his scientific labors, however, it is, whether well founded or not, a high gratification. * * *

Very respectfully, your friend,

J. C. WARREN.

CAMBRIDGE, MASS., *May* 17, 1855.

* * * I have read with great interest your memoir in the Transactions of the American Philosophical Society, and have been not a little surprised at the position assumed by Agassiz in describing your specimens as well as in the lectures which he has recently given here. I cannot conceive that he has been led to his conclusions by anything else than a foregone decision. The anatomical evidence seems to me unmistakable. I am still more inclined to think that he has prejudged the matter since, a few days ago, he pronounced (not knowing their geological position) the specimens now before me as foot-prints of reptiles (as those of toads), and seemed rather taken aback when I told him they were from coal strata.

I feel that some apology is due for the liberty I have taken in addressing you without personal acquaintance, but I trust you will be ready to pardon in the great interest which attaches to the subject of early reptilian life, the evidence in relation to which is so fast accumulating that I believe it will command the assent of the most sceptical to a position as low as the coal and even to the Old Red Sandstone. * * *

With great respect, truly yours,

JEFFRIES WYMAN.

PHILADELPHIA, *May* 21, 1855.

MY DEAR SIR: I am in receipt of your letter of the 17th, and beg to assure you that it will give me great pleasure to afford you any information in my power.

I know of nothing new from the Red Sandstone of Pottsville since Professor Rogers's communication to the American Association at Albany, except that Dr. Leidy last summer found a small bivalve in the Tumbling Run dam, which, however, he mislaid and did not come across again until about two weeks since, when he handed it to me.

I was preparing a paper on it when your letter was handed to me. It will appear in the Proceedings of the Academy of Natural Sciences.

I am very glad to find that Professor Rogers's specimens are in such good hands, for I feel assured that you will do justice to all. I hope you will do me the favor to read carefully what I have said in the memoir in connection with the geological position of those "foot-marks." You will understand that although Professor Rogers said that these "foot-prints" are of "an age essentially later than that attributed to them,"

that there is really no difference of opinion between us as to their being in his "Red Shale" (Formation No. XI), as I expressly stated in my description, the spot being laid down to the foot, taking his own measurements as to the thickness of the strata there. The difference is not as to a geological error on my part, but whether his "Red Shale formation" (Formation No. XI) be part of the Old Red Sandstone or not. In this I followed the opinion of Mr. Taylor, Mr. Hall, Mr. Vanuxem, M. de Verneuil, &c.

The expression on the part of Mr. Rogers in regard to the position of these "foot-marks" I always thought was disingenuous in reference to me, and certainly unjust; because it was intended to detract from any merit that the discovery might give me, when there could really be no doubt as to the position of the "foot-marks" being tre formations below the Coal formation, No. XIII, and in his Formation No. XI, "Red Shale formation."

I therefore have not modified my views, because we have had no additional geological evidence calculated to change the opinions of the distinguished geologists above mentioned. They may all prove wrong, but we must have the facts to show it.

I am not at all surprised at what you say of Agassiz's opinion regarding the "foot-marks." His second attempt at this organism is almost as bad as the first. There is a wide difference between a *fish* and a *toad*. He has oscillated to an extreme point now, and will doubtless have to come down to the Saurian point; nothing else will do, I am sure, for my "foot-marks." * I should like much to know what he has said in his lectures regarding them. Pray, have they been printed or reported?

If you intend to refer to reptilian life in the Devonian of England, *Telerpeton elginense* Mantell, you will find a note in my new folio edition of the Memoirs, p. 13, by which you will see there is some doubt as to that formation. I will send you a copy of this edition with great pleasure as soon as I get some from the binder. In the mean time you may see it in the Cambridge Library or at Dr. Warren's. Had I had the pleasure of your acquaintance before I certainly should have sent you a copy in the box with those for other friends. I suppose you have seen my memoir on the fossil saurian of the "New Red," published in the second volume of the Journal of the A. N. S. I will do myself the pleasure to send you a copy.

I shall probably go to Pottsville in a week or two, having business there with tenants working coal-lands. I have been anxious to examine the localities east and west of that where I first found my specimen. I need not say that it would give me great pleasure to show you this specimen or anything else I have, and it will at all times gratify me to be able to promote the views of one who has done so much for science as yourself.

I am, very truly and sincerely, yours,

ISAAC LEA.

Prof. JEFFRIES WYMAN.

CAMBRIDGE, MASS., *June* 7, 1855.

* * * Your kind letter of May 21 was duly received, and I thank you for the information which it contained. It so happened that on the day following the date of my letter I had an opportunity of seeing your admirable monograph at the rooms of the Boston Society of Natural History.

The specimens which are now in my possession contain the tracks of a much smaller animal than those figured in your memoir. In fact I have two species, the natural sizes of which may be seen in the figures below, which are somewhat exaggerated in point of distinctness as regards the larger species. I think Agassiz will not again

* Is it not singular that he should, over the same specimens, give such different opinions, so far removed from each other? He saw Professor Rogers's specimens at Albany and pronounced them fish; he now sees the same with you and pronounces them toads.

avow his belief, certainly will not quite so roundly object, that all those who have described the remains of reptiles from the Coal Measures have been mistaken. I felt somewhat personally interested in the position which he assumed, as I had in connection with Professor Owen described some reptile remains taken by Sir Charles Lyell from the interior of the hollow coal-tree, but which Agassiz claimed as fishes. As regards the *Sauropus* and those foot-prints now before me, they give him no chance for a retreat, but only an unconditional surrender. In his lectures and scientific communications to the American Academy he has made allusions to the coal reptiles, but I am not aware that he has made any special reference to your labors; but he has included all of us in one category of mistaken naturalists. I am not aware that anything has been published by him bearing upon the subject. Since I have examined your admirable plate I am more surprised than ever at the opinion he expressed with regard to the nature of the prints.

I am very much obliged to you for your kind offer to send me a copy of your memoir. I should certainly prize it very highly. * * *

With great respect, truly yours,

JEFFRIES WYMAN.

CAMBRIDGE, MASS., *July* 6, 1855.

* * * Please accept my sincere thanks for the scientific memoirs which you had the kindness to send me, and which have this day come to hand through our mutual friend, Dr. Warren.

I believe the plate of the tracks of *Sauropus* is wholly unsurpassed in the annals of paleontology, and the scientific world is certainly very much indebted to you for the results of your labors. * * *

Believe me, truly yours,

JEFFRIES WYMAN.

CAMBRIDGE, MASS., *November* 26, 1855.

* * * Our friend Professor Agassiz has just been lecturing on the animals of the Coal formation, and now admits that reptiles *did* exist then, but were of a *very low* kind of reptiles. This eases the matter off a little, but my belief is that he will be obliged to go deeper and admit more than he is willing to do now. * * *

With great respect, truly yours,

JEFFRIES WYMAN.

CAMBRIDGE, MASS., *March* 9, 1858.

Your favor of the 27th ultimo came duly to hand, as well as the copy of your new contribution to the natural history of the genus *Unio*, for which I beg you would accept my sincere thanks. I am afraid I shall not be able to visit Philadelphia at present, as my duties in college seem to require that they should not be interrupted until another vacation.

We have just entered our new building, which was in the process of erection when we had the pleasure of a visit from you last summer. The first exercise took place in it yesterday. My anatomical collection is finely accommodated, and with our mastodon for a center-piece the hall looks quite imposing.

I send herewith a copy of the description of the *Batrachian* fossils from the Coal of Ohio. I think that the accumulated evidence of reptilian life which existed at the Coal period is such that no question will be raised hereafter, unless it be with regard to the *kind* of reptiles. Agassiz admits that *Batrachians* existed; he is disposed to put them in a *class* by themselves, and thus occupying a place next to fishes, instead of forming an *order*, as in the Cuvierian system.

I hope I shall be able to visit Philadelphia at no very distant period, there is so much there that I should be glad to look over, and so many good friends to visit. Please make my kind regards to Dr. Leidy and to Dr. and Mrs. McClellan when you see them.

Sincerely yours,

J. WYMAN.

[Extract from Monsieur Boivin's letter.]

PARIS, 1856.

I have received with great admiration your magnificent work of the imprints of the feet of your *Sauropus primævus*. It is interesting from two different points of view, viz, the subject as well as the execution. The lithographic plate is truly a *chef-d'œuvre*, and the paper is of an admirable fabrication. Young America can compete with advantage with old Europe.

Your devoted, &c.,

A. BOIVIN.

VIENNA, *December* 4, 1857.

* * * We just received a new expedition of the Smithsonian, and along with it I was particularly favored by the kind gift I owe to yourself, that standard classical work on the genus *Unio* and other fresh-water molluscs, for which science is indebted to your unremitting zeal and studies for so many years in that department of natural history.

I return you, therefore, my most sincere thanks for myself as well, who was distinguished even by a colored copy, as also for our Geological Institute.

Also your past letter came to hand as well as other valuable works of lesser compass, and I hope by this time you have received my letters of thanks and acknowledgment through the last expedition of ours to the Smithsonian Institution, with the letters date of 19th of August, 1857. It is true, for letters this conveyance is somewhat slower, but for all, it is invaluable for that steady mutual intercourse for scientific purposes in which the Smithsonian, and in fact the United States, stand unrivaled; and the most friendly intercourse is certainly above all preferred by scientific investigators. We admire with great good heart all that is achieved on the other side of the Atlantic, and that has pushed forward our knowledge most materially. We often talk over your visit in Vienna. Unfortunately I had to keep my house for being unwell. Poor Heckel has since left us forever, a very great loss for his friends as well as for science. Our friends, Von Haur, Hörness, Swess, beg to be remembered. Poor Partsch having died last year, he was succeeded in the direction of the Imperial Mineralogical Museum by our so highly deserved friend, Dr. Hörness.

Mr. Swess (who is married, by the bye, to a sister of Dr. Hörness and niece of Mr. Partsch) is now delivering a course of lectures on paleontology in our university.

As to our Geological Institute, we are getting on, it is true, but rather too slowly, if I compare what is really done with what I might wish to see. We are working with too many "difficulties" as I might call them, not a few of them owing to a want of that most characteristic saying of yours, "going ahead;" for myself, I begin feeling rather tired, particularly as I was far from well all last summer and autumn.

We just received also for the Geological Institute those wonderful "Kane's Arctic Explorations," in the second Grinnell Expedition. It will be a standard work forever for raising men's minds to the most arduous tasks of duty, and to confidence in that Almighty Power which saved this heroic endurer and his men.

What loss for humanity in his premature death!

Yours, truly and devotedly,

WILLIAM HAIDINGER.

OXFORD, *July* 16, 1849.

MY DEAR SIR: I am much gratified by your very interesting letter inclosing a brief summary of your discovery of foot-marks in Old Red Sandstone, and shall have great pleasure in laying this notice before the next meeting of geologists in England, which, as the London sessions are now closed until November, will be at the Birmingham meeting of the British Association in the middle of September, when Professor Rogers will be present. This will give the most rapid and most general announcement of your discovery which is now possible. There is time for you to inform me if you approve of this proposal, and if you do it would add much to the interest of your

memoir if you would send me a slight fraction or outline sketch of the line of footmarks, which will make the case more intelligible than ten pages of verbal description.

Hoping to hear from you before the 12th of September, I am, very truly, yours,

WM. BUCKLAND.

From this period Dr. Lea continued his investigations. His papers in full may be found in the Proceedings and Journal of the Academy of Natural Sciences, and attention is called to some of the most important: "On *Centemodon sulcatus*"; "*Cypricardia Leidyi*," the only mollusk found in the Red Sandstones near Pottsville; "Remarks on *Triquetra contorta*"; "On Vision in the *Unionidæ*"; "Observations on the Geology of the New Red Sandstone near Gwynned, Pennsylvania"; "Remarks on Trilobites found at Braintree, Massachusetts"; "Remarks on the Existence of a *Byssus* in the *Unio*"; "On the Permian of Gwynned" (to which formation he was the first to assign it); "On the Greensand Formation of New Jersey"; "On both lobes of the branchia on *both sides* charged with embryonic shells, and *red ova* in several species"; "On the reversed teeth of *Unio*"; "On the form of the Palpi of South American *Unio*"; "On the visual and auditory organs of the *Unionidæ*"; "Notes on some members of the Feldspar Family"; "On new minerals from Chester County, Pennsylvania"; "On Microscopic Crystals included in some minerals"; "Further notes on Microscopic Crystals in some of the Gems"; "Further notes on 'Inclusions' in Gems," &c.

In addition to these there are innumerable papers during a long succession of years (1827–1874), on new species of the *Unionidæ*, *Strepomatidæ*, *Colimaceæ*, &c., which were published in the Bulletin and Transactions of the American Philosophical Society, and the Proceedings and Journal of the Academy of Natural Sciences of Philadelphia.

The number of new species, mostly from the United States, were:

Species.	No.	Species.	No.
Unio	731	Valvata	1
Anodonta	114	Anculosa	21
Margaritana	27	Amnicola	3
Symphynota	11	Schizostoma	20
Spatha	4	Basistoma	1
Plagiodon	1	Goniobasis	175
Monocondylœa	9	Lithasia	13
Triquetra	1	Strephobasis	7
Iridina	1	Tripanostoma	71
Succinea	17	Neritina	1
Auricula	1	Mycetopus	2
Cyclostoma	4	Eurycœlon	1
Physa	32	Maseschiza	1
Lymnæa	28	Megasystropha	1
Melania	184	Pompholyx	1
Io	10	Ancylus	2
Melanopsis	2	Rivulina	1
Cyrena	4	Bythinia	2
Aphrodite	1	Assiminea	1
Helix	30	Pachychilus	1
Carocolla	5		
Helicina	3	Total	1,604
Achatina	3	Fossil mollusca described in "Contributions to Geology"	228
Paludina	27	Fossil *Unionidæ* described from Greensand formation	10
Ampullaria	6		
Polygyra	2		
Bulimus	12		
Megaspira	1	Total	1,842
Planorbis	7		

Of embryonic forms of *Unionidæ* there are thirty-eight species described and figured. Of soft parts of the *Unionidæ* there are two hundred and fifty-four different species, and these are preserved in thirty-four large glass jars in alcohol. In the thirteen volumes quarto there are two hundred and eighty plates.

A few letters and extracts of the many received from his correspondents may prove interesting in connection with his work referred to in them:

NEW HAVEN, *December* 21, 1860.

MY DEAR SIR: Your very kind recollection of an old friend is gratefully acknowledged.

In addition to numerous favors of an earlier date, I have now to thank you for your beautiful continuation of the description and figures of the *Unionidæ* of the United States and Northern Mexico, Vol. 8, Part I, with 16 plates. The figures are very beautiful, and no doubt exact as beautiful.

Your intelligent perseverance with consummate skill and taste have reared a brilliant monument in this part of conchology, not to mention your always valuable memoirs on other topics.

With every good wish, and a grateful sense of your unremitting kindness to me, I remain, my dear sir, with much esteem and kind regard,

Your obliged friend and servant,

B. SILLIMAN.

To ISAAC LEA, Esq.

[Extract from Silliman's Journal.]

"Mr. Say still continues to devote his attention to the *Uniones*, as appears from the numbers of the American Conchology published at New Harmony. Dr. Hildreth, of Marietta, has also contributed his share toward the elucidation of the *Naïades*. But the papers of Mr. Isaac Lea, in the Transactions of the American Philosophical Society, stand pre-eminent among all the labors of this kind, both for extent and nicety of discrimination. This gentleman has explored, in person, their localities, and has had the good fortune to receive, from time to time, the most abundant supplies of them from his friends resident at the West, so that his cabinet, as all can testify who have examined it, illustrates the different species in a high degree of completeness, containing individuals of all ages, and from distant localities, and those which exhibit also the various accidents under which they are liable to occur. Nor have his examinations been confined to the mere shells and dead animals; he has preserved the same individuals alive under his eye for months, and the observations he records concerning their habits and anatomy are extremely interesting and original."

BRITISH MUSEUM, *London*, *March* 7, 1861.

DEAR Dr. LEA: I have been favored by a copy of the first part of your eighth volume of the work embodying your life-long labors on the *Unionidæ*, and return you many thanks for that and its predecessors. You have set a noble example of persevering devotion to the elucidation, and making known to your fellow-men, of the portion of God's creation selected by your judgment, taste, and opportunities for your studies. You will leave a grand and enduring monument of what one man may accomplish under such conditions, and I trust you may enjoy many years cheered by the retrospect of past labors, and by the grateful estimation in which they are held by the naturalists and lovers of science in both hemispheres.

Believe me to be, with much esteem and regard, yours, most truly,

RICHARD OWEN.

BRITISH MUSEUM, *February* 21, 1871.

DEAR DR. LEA: I have been favored by, I believe, every evidence of your most valuable and untiring labors on the *Unionidæ*, and none more do I value than the volume I have just received, your admirable and instructive "Synopsis," quarto, 1870. I thank you most sincerely for these indispensable bodies of instruction in my library of reference, and for the kindly, friendly, spirit in which they have been transmitted. They represent a kind or class of labors, the most genuine and important, and lasting, in the hard endeavor to gain a knowledge of nature. They worthily represent that "positive work" which Cuvier held in such high esteem.

More catching popular essays occupy the thoughts of the passing generations, but these will vanish along with them, while your fruits of close and long-continued observation will endure, and carry down your honored name as an exemplar to the young and genuine students of nature. As I have often thus thought of you and your works so am I happy in now expressing them, while we may be spared to interchange thought and friendly regard on this fleeting scene of life.

Believe me, truly and sincerely yours,

RICHARD OWEN.

VIENNA, *June* 28, 1871.

MY DEAR SIR: On the 10th of January I received through the Smithsonian Istitution and our own Imperial Geological Institute your concluding index to the twelfth volume of that grand work, "Observations on the Genus *Unio*." Pray, do kindly accept of my most heartfelt thanks for that work, really of the most uncommon value, the complete twelve volumes, which you kindly sent both to our Geological Institute and to myself.

Well may you exclaim now with old Horace, "Exegi monumentum," &c., and that will last so long as natural science shall be cultivated by mankind. The more it is compared and studied the more appears your power of observation, your efforts in pursuing your object, your steadiness and perseverance. During the long series of years you did not tire sending me so many valuable contributions, by yourself, by Mr. Henry Lea, by Mr. Carey Lea, for many of which I have been guilty of having tendered too seldom, or even no acknowledgments at all. Pray, do now kindly accept of a sum of them, along with the thanks for your last index. Well may you consider this as a jubilee, fifty-three years having now gone by since you published your "Account of the Minerals at present known to exist in the vicinity of Philadelphia," in the Philadelphia Journal Academy Natural Sciences, I, 1817, pages 462–482, as I find [illegible] mentioned in the "Catalogue of Scientific Papers, 1800 to 1863," this memoir opens the series of one hundred titles, pages 897–902, in the third volume of that work [illegible] by the London Royal Society.

[illegible] mineralogy, geology, natural philosophy, you first entered into the steady [illegible] your *Unionida* and other allied species, not to leave them more till your beau[illegible] monument was completed.

[illegible] permitted to speak of advancing years to you, who rather are my better, [illegible] since my serious illness in the winter of 1865 to 1866, and my retirement [illegible] director general of the Geological Institute, my state of health is [illegible] than I should wish.

[illegible] comparing the twelve volumes I also turned over again, with delight, [illegible] beginning with your stay in our good city of Vienna in 1853, [illegible] honored family, Mrs. Lea and Miss Lea. I hope you all continue [illegible] friend [illegible], in Vienna, Franz von Hauer, Fraunfeld, Swess, are [illegible] and well, poor Partsch died in 1856, and a very great loss was [illegible] friend Hörnes, on the 4th of November, 1868.

[illegible] to all your family and friends.

[illegible]

W. HAIDINGER.

PARIS, *February* 11, 1860.

MY DEAR SIR: A thousand thanks for the parcel which you have had the goodness to send me, consisting of the second part of volume 6 of your observations on the genus *Unio*, and the pamphlet which accompanied it.

Your work upon the *Unio* is certainly the most beautiful and complete which we have upon this magnificent genus, and I might say the only one, for I do not count as anything the article which M. Chenu has given in his "Conchological Illustrations," where he has copied your figures, and has also depended on you for the text. You render a great service to science in devoting your time to the classification and description of the *Unio*. I trust that Heaven will give you a long life, both for your sake and our own.

With the warmest expression of my attachment, I am, yours, most sincerely,

A. BOIVIN.

Dr. Lea's cabinet of *Unionidæ* consists of horizontal cases in two large rooms, in which cases there are displayed to view about ten thousand individuals, of different ages, so arranged that each may be separately examined. In fact, this collection is unique in having many species arranged with a sequence from the youngest to the oldest, so that the student may see at a glance the aspect of their growth.

Thus a suite of differerent ages may consist of a dozen or more, no two being exactly the same.

Where the female differs in outline from the male there is also a suite of ages which generally marks the age of puberty. A suite of aberrant forms is also given, so that there may be fifty specimens of a single species, there being no two exactly the same. The whole of this collection is arranged on grooved wooden slats, with the left valve underneath, the anterior part to the right, and the beaks uppermost, thus giving a comparative view of the outline of one species with another. He began this collection in 1825, and has continued adding to it unremittingly to the present time. It is so complete that if all the collections known were selected from, one similar to it could not be made. The collection of fresh-water univalves is also large, consisting of several thousand. The collection of fossils is classified and placed in stratifications from the Archaic to the Tertiary formations. His collection of land shells is also very extensive, consisting of many rare species from almost every part of the globe, and that of marine mollusca is large and complete, containing, as it does, many rare genera and species.

Dr. Lea's first memoir of that remarkable series on the *Unionidæ*, &c., was published in the Transactions of the American Philosophical Society in 1827, vol. 3, new series, and were continued in vols. 4, 5, 6, and 7. Subsequently he published them in the Journal of the Academy of Natural Sciences until 1876, when they were discontinued (owing to illness). He had printed for his own use two hundred and fifty copies, forming thirteen volumes, with three indices. These were gratuitously distributed to scientists and to learned societies.

Dr. Lea has preserved all his scientific correspondence since 1818, and these numerous letters show the development of fresh water and

land mollusca of the United States, he being universally the acknowledged authority on these families of mollusca.

The most distinguished authors who have written on the subject of the divisions of the *Unionidæ* have acknowledged the difficulty of the subject. The true definition of a species has much engaged his attention, and he has in his synopsis endeavored to express his idea of what constitutes a species in the following words:

> A species must be considered a primary established law, stamped with a persistent form, a type, pertaining solely to itself, with the power of successfully reproducing the same form and none other.

Dr. Lea has always held that the chief work of scientific societies is in connection with their publications, because these reach all similar bodies, and through them scientists, wherever science is cultivated. The gathering of materials for a collection is necessary, although that is of secondary importance. In regard to the date of papers, he always considered that the day of reading and presenting the communication to a society, and depositing it, was the only reliable date, as from that time the paper was in the possession of the society and could not be changed.

This has been the usage with most of the learned societies of Europe, although in this country some societies adopt the rule of issuing printed descriptions as necessary to precedence.

All Dr. Lea's papers, from first to last, were printed exactly as they were read and presented to the Academy of Natural Sciences and the American Philosphical Socie, during a period of fifty-nine years, except two specific names which had been used before. These he requested permission of the society to change.

The great use to men of science of the Smithsonian Institution is universally acknowledged. It has been the medium of communication between learned societies throughout the world, both in facilitating correspondence and interchanging publications. To Dr. Lea it has been of great assistance from its establishment to the present time. Its constant and safe conveyance of all his numerous memoirs, and the return of those of various authors by thousands, have been accomplished without a single loss. Thus the Zoological Society, of London, has sent him all its Proceedings from 1831; the Asiatic Society of Bengal since 1835; and the Imperial Royal Geological Society, Vienna, from 1853. Professor Haidinger says in one of his letters:

> It is invaluable for that steady mutual intercouse for scientific purposes, in which the Smithsonian, and in fact the United States, stands unrivaled. And the most friendly intercourse is certainly above all preferred by scientific investigators.

Dr. Lea was accustomed to pass his summer, for many years, in Chester County, so rich in its various minerals. In that and Delaware County, with his friends, Dr. Hartman, Mr. Jefferis, and Mr. Joseph Willcox, many localities were searched, and some new ones discovered. Dr. Lea found several new minerals which he called *Cassinite*, *Patersonite*, *Les-*

leyite, *Lennilite*, and *Delawarite*, an account of which Dr. Genth, State geologist, has given in his reports.* The two last-named he considers are varieties of the same mineral. Dr. Lea was the first to discover that interesting and rare mineral, *Diaspore*, in Pennsylvania. He found it on the farm of Mr. Lesley, and has the largest crystal on record, measuring 4 inches in length.

His intimacy with Admiral Wilkes made him acquainted with all the proceedings of that remarkable expedition, and he frequently advised with Dr. Lea in regard to the vast collection of natural history which was made by the naturalists in charge. This friendship continued until the death of the admiral. Dr. Lea has scores of long and confidential letters from him.

When the late Dr. Bigsby, the eminent geologist, visited this country about 1830, he passed the winter in Philadelphia and was a frequent guest of Dr. Lea. Subsequently he was engaged in the practice of medicine for twenty years at a distance from London. Resigning his practice he engaged with enthusiasm in his favorite science, and produced those elaborate works on geology which established his reputation, and his correspondence with Dr. Lea was again renewed. The late J. Gwyn Jeffreys was also a visitor at Dr. Lea's when in this country and spent several days with him. He was the best conchologist of his time in England, and distinguished for his writings on English mollusca.

Dr. Lea was president of the Academy of Natural Sciences of Philadelphia from 1853 to 1858, and filled other official positions more than half a century. He was vice-president of the American Philosophical Society for several years, and was chairman of its two principal committees (publication and finance) until his second visit to Europe, when he resigned the offices.

In 1860 he presided at the meeting of the American Association for the Advancement of Science, and five years afterwards, at Buffalo (there being no meeting during the war of the rebellion), he retired in favor of Dr. Gould, the astronomer, who was appointed to succeed him.

Dr. Lea is one of the largest contributors to science in this country; he began publishing his papers in 1817, and the last contribution of importance was issued in 1876, embracing a period of fifty-nine years of active research.

Although in his ninety-fourth year, he is blessed with good health, and his mental and physical faculties continue unimpaired. His deep interest in scientific matters was recently manifested by inviting the members of the American Association for the Advancement of Science, and their guests of the British Association at the meeting in Philadelphia in September, 1884, to visit him at his summer residence at Long Branch, where he had the pleasure of receiving and entertaining about two hundred members.

---

*Second Geological Survey of Pennsylvania, B, pp. 93 and 224.

He no longer writes with the intention of publishing, but his microscopical lithology, particularly of inclusions in crystals, of which he has a most extensive collection, is his almost daily employment, making the most minute drawings on the labels, which are written by his own hand.*

His cabinet of quartz crystals consists of nearly one thousand specimens, and corundum crystals nearly five hundred. His collection of the mica group is the most extensive in the country, consisting of thirty-five drawers. In addition to the collection of the large mica group, Dr. Lea has several hundred sections of lamina prepared for the microscope, with notes regarding their inclusions; these consist chiefly of muscovite, phlogopite, clinochlore, biotite, jefferisite, hallite, &c., and were intended for publication, but he had not the opportunity of writing the descriptions.

He was the first geologist who found fossil remains in the limestone (Formation II of Rogers) of Chester County, and subsequently in the same limestone of Bucks County, from the same formation, whence he obtained trilobites, &c.

Dr. Lea's love of nature was intensely strong. It began in early life, increased with his years, and at the present time engages the most of his attention.

The wondrous productions of the Great Creator are evidence to him of the wisdom and design which always prevail throughout His works.

In all his scientific researches his brilliant and accomplished wife always evinced the deepest interest. She was indeed his constant companion until the year 1873, when, after an illness of fourteen years, she was called to her heavenly rest.

Mrs. Lea had studied thoroughly the trees of this country and of Europe. Mr. Nuttall said she was better acquainted with American trees than any American botanist, and Mr. Michaux, who was a frequent visitor during their stay in Paris, in 1852 and 1853, was surprised to find a lady who was so thoroughly acquainted with his own and his father's works on the trees of North America.

Dr. Lea's numerous contributions to science have been universally recognized by the best scientists at home and abroad, as of great importance on the various subjects which he has published. The issues of the Academy of Natural Sciences and the American Philosophical Society for sixty years justify this, and these publications have been acknowledged by numerous learned societies, they having conferred their honors upon him, as the following list will show: ex-president Academy Natural Sciences; vice-president American Philosophical Society; doctor of laws from Harvard University in 1852; honorary member Asiatic Society, Bengal; member Royal Physical Society,

*A few of these may be seen in his three papers, "Notes on microscopic crystals," the plates of which were drawn by himself exhibiting surface markings and inclusions.

Edinburgh; member Linnean Society, Bordeaux; member Imperial Society, Moscow; honorary member Boston Society Natural History; member Royal Academy Sciences, Turin; honorary member Royal Zoological Society of Ireland; member Zoological Society, London; honorary member Manchester Natural History Society; member Royal Northern Antiquarian Society, Copenhagen; honorary member Physical and Natural History Society, Geneva; member Geological Society, Berlin; member Natural History Society, Athens, Greece; member Société Polytechnique, Paris; member Société Impériale des Sciences Naturelles de Cherbourg; member Imperial Royal Zoological and Botanical Society, Vienna; member Imperial Royal Geological Society, Vienna; member Natural History Society, Wurtemberg; member Société Paleontologique de Belgique; member Natural History Society, Montreal; ex-president and fellow American Association for the Advancement of Science; member British Association 1832 and 1853; honorary member Historical Society, Buffalo, N. Y.; honorary member California Society of Natural History; member New York Academy of Science, &c.

BIBLIOGRAPHY

OF

THE PUBLICATIONS OF ISAAC LEA, LL. D.

1.

1818. LEA, ISAAC. An account of the Minerals at present known to exist in the vicinity of Philadelphia. < *Journ. Acad. Nat. Sci. Phila.*, i, 1st series, pp. 462–482.

Printed under date of December, 1818.

2.

1822. LEA, ISAAC. Notice of a singular impression in sand-stone. < *Amer. Journ. Sci. and Arts*, v, 1822, p. 155.

Letter to Prof. Silliman, dated February 24, 1822, about some "reliquia" found about a quarter of a mile above Pittsburgh, and on the same side of the Monongahela. Nature of impression unknown.

3.

1823. LEA, ISAAC. Sketch of the History of Mineralogy. < *Amer. Med. Journ.*, Nov., 1823, pp. 270——.

Sabin, in his Bibliotheca Americana, mentions a separate of this. See No. 39494.

4.

1825. LEA, ISAAC. On Hybernation. < *Amer. Journ. Sci. and Arts*, ix, 1825 (June), pp. 75–83. Also in *Froriep, Notizen*, xxxix, 1834, col. 161–168.

5.

1825. LEA, ISAAC. On Earthquakes—their causes and effects. < *Amer. Journ. Sci. and Arts*, ix, 1825, pp. 209–215.

6.

1826. LEA, ISAAC. On the North-West Passage. < *Amer. Journ. Sci. and Arts*, x, 1826 (February), pp. 138–145.

7.

1826. LEA, ISAAC. Notice of two halos with parhelia. < *Amer. Journ. Sci. and Arts*, x, 1826, pp. 368, 369. One plate.

8.

1826. LEA, ISAAC. On the pleasure and advantage of studying Natural History. < *Amer. Journ. Sci. and Arts*, xi, 1826, pp. 218–224.

9.

1827. LEA, ISAAC. Description of Six New Species of the Genus Unio, embracing the Anatomy of the Oviduct of one of them, together with some Anatomical Observations on the Genus. < *Trans. Amer. Philos. Soc.*, iii, New series, pp. 259–273, pls. iii–vi.

Read before the American Philosophical Society November 2, 1827. Acknowledged April 25, 1828, by correspondent in Cincinnati who had received impressions of the plates Decem-

1827. LEA, ISAAC—Continued.

ber, 1827. (See *Rectification of T. A. Conrad's Synopsis, etc.*, *Proc. Amer. Philos. Soc.*, vii, p. 242, foot-note.)

Mr. Sabin gives a separate for 1827, 8°. (See No. 10.)

With No. 12 forms No. 13.

Preliminary remarks.....259–265

Unio calceolus, Lea, n. s., pl. iii, fig. 1 265

Hab.: Ohio, T. G. Lea.

Unio lanceolatus, Lea, n. s., pl. iii, fig. 2 266

Hab.: Tar River at Tarborough.

Unio donaciformis, Lea, n. s., pl. iv, fig. 3..... 267

Hab.: Ohio, T. G. Lea.

Unio ellipsis, Lea, n. s., pl. iv, fig. 4 268

Hab.: Ohio, T. G. Lea.

Unio irroratus, Lea, n. s., pl. v, fig. 5..... 169

Hab.: Ohio, T. Bakewell.

Unio lacrymosus, Lea, n. s., pl. vi, fig. 8..... 272

Hab.: Ohio, T. G. Lea.

10.

1827. LEA, ISAAC. Description of Six New Species of the Genus Unio, read before the American Philosophical Society, November 2nd, 1827; with Anatomical Observations on the Genus. Philadelphia, 1827. 8°.

Title taken from Sabin's "Bibliotheca Americana." Separate of No. 9.

11.

1828. LEA, ISAAC. North-West Passage. < *Amer. Quar. Rev.*, iii, 1828. June, pp. 505–542.

Review of "Narrative of an attempt to reach the North Pole, in boats fitted for the purpose, and attached to His Majesty's ship Hecla, in the year 1827, under the command of Captain William Edward Parry, R. N., F. R. S., and honorary member of the Imperial Academy of Sciences at St. Petersburgh. Illustrated by Plates and Charts. Published by authority of His Royal Highness, the Lord High Admiral. London: 1 vol., 4to, pp. 229, 1828."

12.

1829. LEA, ISAAC. Description of a New Genus of the Family of Naïades, including Eight Species, Four of which are New; also the Description of Eleven New Species of the Genus Unio from the Rivers of the United States; with Observations on some of the Characters of the Naïades. < *Trans. Amer. Philos. Soc.*, iii, New series, pp. 403–457, with pls. vii–xiv, colored.

Read before the American Philosophical Society March 6, 1829. Distributed in May or June, 1829. (See *Proc. Acad. Nat. Sci., Phila.*, vii, p. 243.)

With No. 9 forms No. 13.

Remarks upon objections sometimes made to the study of conchology 402–406

On the species of the *Unionea*, described by naturalists who have written on our shells 406–407

On specific characteristics, etc. Teeth, Colour, Elevations, Beaks, Muscular Impressions, Ligament, etc.....407–415

Table of nomenclature of the species.....415–421

On Lamarck's species.....421–425

Unio ater, Lea, n. s., pl. vii, fig. 9..... 426

Hab.: Mississippi below Natchez, T. W. Robeson.

Unio rubiginosus, Lea, n. s., pl. viii, fig. 10..... 427

Hab.: Ohio.

Unio heterodon, Lea, n.s., pl. viii, fig. 11..... 428

Hab.: Schuylkill and Derby Creek, Pa.

Unio sulcatus, Lea, pl. viii, fig. 12..... 430

Hab.: Ohio, T. G. Lea. This is variety *a* of *Unio ellipsis*. (See *Trans. Amer. Philos. Soc.*, iii, p. 269.)

Unio planulatus, Lea, n. s., pl. ix, fig. 13 431

Hab.: Ohio, T. G. Lea.

Unio circulus, Lea, n. s., pl. ix, fig. 14 433

Hab.: Ohio at Cincinnati, T. G. Lea; Monongahela at Pittsburgh, T. Bakewell; Tennessee at Nashville, Prof. Vanuxem.

1829. LEA, ISAAC—Continued.

Unio multi-radiatus, Lea, n. s., pl. ix, fig. 15 434
Hab.: Ohio, T. G. Lea.

Unio occidens, Lea, n. s., pl. x, fig. 16 435
Hab.: Ohio, T. G. Lea.

Unio securis, Lea, n. s., pl. xi, fig. 17 437
Hab.: Ohio, T. G. Lea.

Unio iris, Lea, n. s., pl. xi, fig. 18 439
Hab.: Ohio, T. G. Lea.

Unio zig-zag, Lea, n. s., pl. xii, fig. 19 440
Hab.: Ohio, T. G. Lea.

Unio patulus, Lea, n. s., pl. xii, fig. 20 441
Hab.: Ohio, T. G. Lea.

SYMPHYNOTA, Lea, n. g 442

Symphynota lævissima, Lea, n. s., pl. xiii, fig. 23 444
Hab.: Ohio, T. G. Lea.

Symphynota bi-alata, Lea, n. s., pl. xiv, fig. 24 445
Hab.: fresh waters of the south of Asia. (!) Brought from Canton by Captain Barr.

Symphynota alata (Say), Lea 448
Hab.: Our western waters.

Symphynota complanata (Barnes), Lea 449
Hab.: Fox River, Mr. Schoolcraft; Wisconsin, Captain Douglass; Ohio, W. Cooper.

Symphynota compressa, Lea, n. s., pl. xii, fig. 22 450
Hab.: Ohio, T. G. Lea; Norman's Kill, near Albany, Dr. Eights. *Proc. Amer. Philos. Soc.*, ii, pp. 237, changed to *Unio pressus*.

Symphynota gracilis (Barnes), Lea 452
Hab.: Ohio, T. G. Lea; Wisconsin, Mr. Schoolcraft.

Symphynota tenuissima, Lea, n. s., pl. xi, fig. 21 453
Hab.: Ohio, T. G. Lea.

Symphynota ochracea (Say), Lea 455
Hab.: Schuylkill and Delaware.

Symphynota cygnea (Linn), Lea 456
Hab.: Rivers and Lakes of Europe.

13.

1829. LEA, ISAAC. Observations | on | the Genus Unio, | together with | Descriptions | of | Eighteen New Species; and of the Genus Symphy- | nota, now separated from the family of | Naïades, containing nine species. | Read before the Am. Philos. Society November 1827 & March 1829, | and published in their Transactions, Vol. III, N. S. | By Isaac Lea, M. A. P. S., M. A. N. S., &c. | Philadelphia: | Printed by James Kay, Jun. & Co. | 1829. 4°. pp. 71, pls. iii–xiv, colored.

This consists of numbers 9 and 12, repaged from 1 to 71, and with the same plates that are used in the Transactions. Published according to the title-page in 1829.

14.

1829. LEA, ISAAC. Short Reviews and Notices of Nuttall's Travels. Captain Franklin's Travels, etc. < *National Gazette*.

15.

1830-31. LEA, ISAAC. Observations on the Naïades, and Descriptions of New Species of that and other Families. < *Trans. Amer. Philos. Soc.*, iv, pp. 63–121, with pls. iii-xviii, colored.

Consists of two parts.

The main part 63–105
Read May 7, 1830.

The supplement 105–121
Read May 20, 1831.

Both were issued together the latter end of 1831, and acknowledged by correspondents as received that year. (See *Proc. Acad. Nat. Sci.*, vii, p. 243.)

1830-31. LEA, ISAAC—Continued.

Remarks on the elevations on the surface of the disks 63
On the green irregular spots and marks on the interior of the valves 64
On the necessity of studying the different ages of the species of Uniones 65
On the habits of Uniones 65
On the difficulties attending the present generic divisions of the family *Naiades* 67
Unio trapezoides, Lea, n. s., pl. iii, fig. 1 69
Hab.: Lake St. Joseph, Louisiana, J. T. Griffith, Esq.
Unio multiplicatus, Lea, n. s., pl. iv, fig. 2 70
Hab.: Tennessee River, Prof. Vanuxem; Ohio River, T. G. Lea.
Unio asperrimus, Lea, n. s., pl. v, fig. 3 71
Hab.: Ohio River, T. G. Lea.
Unio Congaræus, Lea, n. s., pl. vi, fig. 4 72
Hab.: Congaree River, South Carolina.
Unio oriens, Lea, n. s., pl. vi, fig. 5 73
Hab.: Ohio River, T. G. Lea.
Unio brevidens, Lea, n. s., pl. vi, fig. 6 75
Hab.: Ohio, William Cooper.
Unio pustulosus, Lea, n. s., pl. vii, fig. 7 76
Hab.: Ohio, T. G. Lea; Alabama River, Judge Tait.
Unio stapes, Lea, n. s., pl. vii, fig. 8 77
Hab.: Alabama River, Judge Tait.
Unio pustulatus, Lea, n. s., pl. vii, fig. 9 79
Hab.: Ohio, T. G. Lea; Tennessee, Prof. Vanuxem.
Unio lens, Lea, n. s., pl. viii, fig. 10 80
Hab.: Ohio, T. G. Lea; Tennessee, Prof. Vanuxem.
Unio anodontoides, Lea, n. s., pl. viii, fig. 11 81
Hab.: Mississippi River, T. W. Robeson; Alabama River, Judge Tait; Ohio River, T. H. Taylor.
Unio glans, Lea, n. s., pl. viii, fig. 12 82
Hab.: Ohio River, T. G. Lea.
Unio elegans, Lea, n. s., pl. ix, fig. 13 83
Hab.: Ohio River, T. G. Lea.
Unio ebenus, Lea, n. s., pl. ix, fig. 14 84
Hab.: Ohio River, T. G. Lea.
Unio asper, Lea, n. s., pl. ix, fig. 15 85
Hab.: Alabama River, Judge Tait.
Unio fabalis, Lea, n. s., pl. x, fig. 16 86
Hab.: Ohio River, T. G. Lea.
Unio soleniformis, Lea, n. s., pl. x, fig. 17 87
Hab.: Ohio, T. G. Lea.
Unio acutissimus, Lea, n. s., pl. x, fig. 18 89
Hab.: Alabama River, Judge Tait.
Unio varicosus, Lea, n. s., pl. xi, fig. 20 90
Hab.: Ohio River, T. G. Lea.
Unio castaneus, Lea, n. s., pl. xi, fig. 21 91
Hab.: Alabama River, Judge Tait.
Unio multistriatus, Lea, n. s., pl. xii, fig. 22 91
Hab.: Brazil, Mrs. Mawe.
Unio decisus, Lea, n. s., pl. xii, fig. 23 92
Hab.: Alabama River, Judge Tait.
Unio cuprinus, Lea, n. s., pl. xii, fig. 24 94
Hab.: Mexico, J. R. Poinsett, Esq.
Unio cæruleus, Lea, n. s., pl. xiii, fig. 25 95
Hab.: River Hoogly, Hindostan, G. W. Blakie.
Unio obesus, Lea, n. s., pl. xiii, fig. 26 96
Hab.: York River, Virginia, Wm. Cooper.
Unio incurvus, Lea, n. s., pl. xiii, fig. 27 97
Hab.: From Gibraltar, Mrs. Mawe.
Symphynota bilineata, Lea, n. s., pl. xi, fig. 19 98
Hab.: River Hoogly, Hindostan, G. W. Blakie.
Symphynota inflata, Lea, n. s., pl. xiv, fig. 28 99
Hab.: Alabama River, Judge Tait.
Melania subularis, Lea, n. s., pl. xv, fig. 30 100
Hab.: Niagara River.
Melania tuberculata, Lea, n. s., pl. xv, fig. 31, *a*, *b* 101
Hab.: Tennessee River, Prof. Vanuxem.

1830. LEA, ISAAC—Continued.

Melania acuta, Lea, n. s., pl. xv., fig. 32 101
Hab.: Tennessee River, Prof. Vanuxem.
Helix carolinienses, Lea, n. s., pl. xv, fig. 33, *a*, *b*, *c* 102
Hab.: South Carolina, near Cheraw.
Carocolla helicoides, Lea, n. s., pl. xv, fig. 34, *a*, *b*, *c* 103
Hab.: Tennessee, near Nashville, Prof. Vanuxem.
Carocolla spinosa, Lea, n. s., pl. xv, fig. 35, *a*, *b*, *c* 104
Hab.: Alabama, near Clairborne, Judge Tait.
Valvata arenifera, Lea, n. s., pl. xv, fig. 36, *a*, *b* 104
Hab.: Cumberland River, near Nashville, W. Cooper.
Supplement read before the American Philosophical Society May 20, 1831.
Remarks upon color, size, habits, etc., of *Uniones* 105–108
Unio olivarius, Lea, n. s., pl. xvi, fig. 38 108
Hab.: Burrill River, India, Dr. Burrough.
Unio pyramidatus, Lea, n. s., pl. xvi, fig. 39 109
Hab.: Ohio, T. G. Lea.
Unio trigonus, Lea, n. s., pl. xvi, fig. 40 110
Hab.: Ohio River at Cincinnati, T. G. Lea; Ohio River at Louisville, T. H. Taylor.
Unio formosus, Lea, n. s., pl. xvi, fig. 41 111
Hab.: Ohio River, T. G. Lea.
Unio perplexus, Lea, n. s., pl. xvii, fig. 42 112
Hab.: Ohio River, T. G. Lea.
Unio angustatus, Lea, n. s., pl. xvii, fig. 43 114
Hab.: Congaree River, South Carolina; Cooper River, South Carolina, Prof. Ravenel.
Unio arcæformis, Lea, n. s., pl. xvii, fig. 44 116
Hab.: Tennessee River, Professor Vanuxem.
Unio subrotundus, Lea, n. s., pl. xviii, fig. 45 117
Hab.: Ohio, T. G. Lea.
Unio subovatus, Lea, n. s., pl. xviii, fig. 46 118
Hab.: Ohio River, T. G. Lea.
Unio pileus, Lea, n. s., pl. xviii, fig. 47 119
Hab.: Ohio River near Cincinnati, Mrs. Febiger.
Melania elongata, Lea, n. s., pl. xv, fig. 29 120
Hab.: West Tennessee, John Lea.

16.

1831. LEA, ISAAC. Description of a new genus of the family Melaniana of Lamarck. <*Trans. Amer. Philos. Soc.*, iv, pp. 122–123.

Read before the American Philosophical Society January 7, 1831. Issued the latter part of the year 1831.

Io, Lea, n. g 122
Io fusiformis, Lea, n. s., pl. xv, fig. 37, *a*, *b* 122

17.

1832. LEA, ISAAC. Observations | on | the Genus Unio, | together with | Descriptions | of | New Genera and Species in the Families Naïades, | Melaniana and Colimacea. | Read before the Am. | Philos. Society in 1827, 1829 and 1831, and published in | their Transactions in vols. III and IV, N. S. | By Isaac Lea, | member of the American Philosophical Society, of the Academy of Natural Sci- | ences of Philadelphia, of the Lyceum of Natural History of New York, | of the Royal Physical Society of Edinburgh, of the Natural | History Society of Montreal, corresponding member | of the Linnean Society of Bordeaux, Etc. | Philadelphia: | Printed by James Kay, Jun. & Co. | Printers to the Society, | 1832. 4°. pp. 133, pls. xxvii, colored.

This consists of Nos. 13, 15, and 16 bound in one, with consecutive paging.

18.

1833. LEA, ISAAC. Contributions | to | Geology. | by | Isaac Lea, | member of the American Philosophical Society; | of the Academy of Natural Sciences of Philadelphia; | of the Lyceum of Natural History of New York; | honorary

1833. LEA, ISAAC—Continued.

member of the Medical Society of Orange County, | New York; | member of the Royal Physical Society of Edinburgh; | of the British Association of Science; | of the Natural Historical Society of Montreal; | corresponding member of the Linnæan Society of Bourdeaux, | Etc. Etc. | Philadelphia: | Carey, Lea and Blanchard. | 1833. 8°. pp. 227, with 228 colored figures.

Presented by the author to the library of the Acad. Natural Sciences, Philadelphia, December 10th, 1833; but this does not represent the date of issue, for Prof. Silliman (having received a bound copy) writing from New Haven, on the 3rd of December, 1833, wishes to have a notice for the January Number of the *American Journal of Science, etc.*

(See *Rectification of T. A. Conrad's Synopsis, etc., new edition*, 1872, p. 37.)

At that time the mail took two or three days to reach New Haven from Philadelphia, making the date of issue as early as the last part of November.

This book is dedicated to Charles Tait, Esq., of Clairborne, Alabama, of whom Mr. Lea says: "I am, therefore, indebted to Judge Tait for every new species described in this paper, and to him science owes the great obligation of having first brought them to light."

CONTENTS.

Tertiary Formation of Alabama 9-186
Read before the *Acad. Nat. Sci. Phila.*, Aug. 27, 1833.
Supplement 187-208
Read before the *Acad. Nat. Sci. Phila.*, Oct. 29, 1833.
New Tertiary Fossil Shells, from Maryland and New Jersey 209-216
Read before the *Amer. Philos. Soc.*, Nov. 1, 1833.
New Genus of Fossil Shell, from New Jersey 217-220
Read before the *Amer. Philos. Soc.*, Nov. 1, 1833.
Tufaceous Lacustrine Formation of Syracuse, Onondaga County, N. Y 221-227
Read before the *Amer. Philos. Soc.*, Nov. 1, 1833.
Tertiary Formation of Alabama 9-186
Introduction 11-28
Systematic Index of New Tertiary Fossils from Claiborne, Alabama 29-32
Siliquaria Claibornensis, Lea, n. s., pl. 1, fig. 1 33
Dentalium alternatum, Lea, n. s., pl. 1, fig. 2 34
See *D. thalloides, Con., Foss. Shells Tertiary Form.*, p. 34, Aug., 1833. See *Amer. Journ. Sci.*, vol. 1, 1846, p. 212.
Dentalium turritum, Lea, n. s., pl. 1, fig. 3 35
Spirorbis tubanella, Lea, n. s., pl. 1, fig. 4 36
Serpula ornata, Lea, n. s., pl. 1, fig. 5 37
(See *Amer. Jour. Sci.*, vol. 1, sec. ser., 1846, p. 212.)
Teredo simplex, Lea, n. s., pl. 1, fig. 6 38
Solecurtus Blainvillii, Lea, n. s., pl. 1, fig. 7 39
Anatina Claibornensis, Lea, n. s., pl. 1, fig. 8 40
Mactra dentata, Lea, n. s., pl. 1, fig. 9 41
See *M. decisa*, Con., 1833, *Tert. Form.*, p. 42. (See *Amer. Journ. Sci.*, vol. 1, (2nd ser.), p. 217.)
Mactra Grayi, Lea, n. s., pl. 1, fig. 10 42
See *Eryana æquorea, Foss. Shells Tert. Form.=Triquetra æquoria*, Con., *Amer. Journ. Sci.*, vol. 1 (2nd ser.), p. 218, March, 1846.
Mactra pygmæa, Lea, n. s., pl. 1, fig. 11 44
See *Foss. Tert. Forma.*, p. 42. See *Amer. Journ. Sci.*, vol. 1 (2nd ser.), p. 217.
Corbula Alabamiensis, Lea, n. s., pl. 1, fig. 12 45
See *Corbula nasuta*, Con., *Foss. Shells Tert. Form.*, p. 38. (*Amer. Journ. Sci.*, 1 (2nd ser.), p. 398.)
Corbula Murchisonii, Lea, n. s., pl. 1, fig. 13 46
Corbula gibbosa, Lea, n. s., pl. 1, fig. 14 46
Corbula compressa, Lea, n. s., pl. 1, fig. 15 47
Byssomia petricoloides, Lea, n. s., pl. 1, fig. 16 48
EGERIA, Lea, n. g 49
Egeria rotunda, Lea, n. s., pl. 1, fig. 17 50
See *Mysia ungulina*, Con.
Egeria inflata, Lea, n. s., pl. 1, fig. 18 50
See *Sphaerella, Journ. Conch.*, I, 9.
Egeria nitens, Lea, n. s., pl. 1, fig. 19 51
Egeria triangulata, Lea, n. s., pl. 1, fig. 20 51
Egeria Bucklandii, Lea, n. s., pl. 1, fig. 21 52

1833. LEA, ISAAC—Continued.

Egeria subtrigonia, Lea, n. s., pl. 1, fig. 22 53
See *Egeria stolia*.
Egeria veneriformis, Lea, n. s., pl. 1, fig. 23 53
Egeria ovalis, Lea, n. s., pl. 1, fig. 24 54
Egeria plana, Lea, n. s., pl. 1, fig. 25 55
See *Tellina plana*, Con., 1846, *Amer. Jour. Sci.*, vol. 1 (2d series), p. 400.
Egeria nana, Lea, n. s., pl. 1, fig. 26 55
Lucina compressa, Lea, n. s., pl. 1, fig. 27 55
Lucina rotunda, Lea, n. s., pl. 1, fig. 28 56
Lucina cornuta, Lea, n. s., pl. 1, fig. 29 56
See *L. curinifera*, Con., *Foss. Shells Tert. Forma.*, p. 40. Nov. 1, 1833.
Lucina impressa, Lea, n. s., pl. 1, fig. 30 57
See *L. pomilia*, Con., Nov. 1, 1883. *Foss. Shells' Tert. Form.*, p. 40. (See *Amer. Journ. Sci.*, vol. 1 (2d series), p. 403.
Lucina papyracea, Lea, n. s., pl. 1, fig. 31 58
Lucina lunata, Lea, n. s., pl. 1, fig. 32 58
See *L. alveata*, Con., *Foss. Shells Tert. Form.*, p. 40. Nov.—, 1833. (See *Amer. Jour. Sci.*, vol. 1 (2d ser.), p. 402.
Gratelupia Moulinsii, Lea, n. s., pl. 2, fig. 33 59
Astarte recurva, Lea, n. s., pl. 2, fig. 34 61
Astarte Nicklinii, Lea, n. s., pl. 2, fig. 35 61
Astarte sulcata, Lea, n. s., pl. 2, fig. 36 62
Astarte parva, Lea, n. s., pl. 2, fig. 37 63
Astarte minor, Lea, n. s., pl. 2, fig. 38 63
Astarte minutissima, Lea, n. s., pl. 2, fig. 39 64
Cytherea globosa, Lea, n. s., pl. 2, fig. 40 65
Cytherea comis, Lea, n. s., pl. 2, fig. 41 66
Cytherea hydii, Lea, n. s., pl. 2, fig. 42 66
Cytherea suberassa, Lea, n. s., pl. 2, fig. 43 67
Cytherea trigoniata, Lea, n. s., pl. 2, fig. 44 67
Cytherea minima, Lea, n. s., pl. 2, fig. 45 68
Venericardia transversa, Lea, n. s., pl. 2, fig. 46 68
Venericardia Sillimani, Lea, n. s., pl. 2, fig. 47 69
Venericardia rotunda, Lea, n. s., pl. 2, fig. 48 70
Venericardia parva, Lea, n. s., pl. 2, fig. 49 70
HIPPAGUS, Lea, n. g. 72
Hippagus isocardivides, Lea, n. s., pl. 2, fig. 50 72
MYOPARO, Lea, n. g 73
*P. costatus, Lea, n. s., pl. 2, fig. 51 74
Arca rhomboidella, Lea, n. s., pl. 2, fig. 51 74
Pectunculus Broderipii, Lea, n. s., pl. 3, fig. 53 76
Pectunculus minor, Lea, n. s., pl. 3, fig. 54 77
Pectunculus deltoideus, Lea, n. s., pl. 3, fig. 55 77
Pectunculus ellipsis, Lea, n. s., pl. 3, fig. 56 78
Pectunculus obliqua, Lea, n. s., pl. 3, fig. 57 78
Nucula Sedgewickii, Lea, n. s., pl. 3, fig. 58 79
Nucula ovula, Lea, n. s., pl. 3, fig. 59 80
Nucula pectuncularis, Lea, n. s., pl. 3, fig. 60 81
Nucula Brogniarti, Lea, n. s., pl. 3, fig. 61 82
Nucula media, Lea, n. s., pl. 3, fig. 62 83
Nucula pulcherrima, Lea, n. s., pl. 3, fig. 63 84
Nucula plicata, Lea, n. s., pl. 3, fig. 64 85
Avicula Claibornensis, Lea, n. s., pl. 3, fig. 65 86
Pecten Deshayesii, Lea, n. s., pl. 3, fig. 66 87
Pecten Lyelli, Lea, n. s., pl. 3, fig. 67 88
Plicatula Mantilli, Lea, n. s., pl. 3, fig. 68 89
Ostrea semilunata, Lea, n. s., pl. 3, fig. 69 90
See *Trans. Nat. Inst.*, part 2, p. 193.
Ostrea divaricata, Lea, n. s., pl. 3, fig. 70 91
See *Trans. Nat. Inst.*, part 2, p. 193.
Ostrea Alabamiensis, Lea, n. s., pl. 3, fig. 71 91
Ostrea lingua canis, Lea, n. s., pl. 3, fig. 72 92

*There is evidently a mistake here, and Myoparo should be the genus and not R. Plate 2 has *Myopara costatus* for fig. 51.

1833. LEA, ISAAC—Continued.

Ostrea pincerna, Lea, n. s., pl. 3, fig. 73 92
Fissurella Claibornensis, Lea, n. s., pl. 3, fig. 74 94
Hipponix pygmæa, Lea, n. s., pl. 3, fig. 75 95
Infundibulum trochiformis, Lea, n. s., pl. 3, fig. 76 96
Crepidula cornu-arietes, Lea, n. s., pl. 3, fig. 77 97
Bulla St. Hillairii, Lea, n. s., pl. 4, fig. 78 98
PASITHEA, Lea, n. g 99
Pasithea secale, Lea, n. s., pl. 4, fig. 79 100
Pasithea notata, Lea, n. s., pl. 4, fig. 80 101
Pasithea lugubris, Lea, n. s., pl. 4, fig. 81 101
Pasithea aciculata, Lea, n. s., pl. 4, fig. 82 102
Pasithea striata, Lea, n. s., pl. 4, fig. 83 102
See *Jour. Acad. Nat. Sci.*, IV, new series, p. 294.
Pasithea sulcata, Lea, n. s., pl. 4, fig. 84 103
Pasithea umbilicata, Lea, n. s., pl. 4, fig. 85 103
Pasithea guttula, Lea, n. s., pl. 4, fig. 86 104
Pasithea Claibornensis, Lea, n. s., pl. 4, fig. 87 105
Natica striata, Lea, n. s., pl. 4, fig. 88 105
Natica parva, Lea, n. s., pl. 4, fig. 89 106
Natica minor, Lea, n. s., pl. 4, fig. 90 107
Natica minima, Lea, n. s., pl. 4, fig. 91 107
Natica gibbosa, Lea, n. s., pl. 4, fig. 92 108
Natica semilunata, Lea, n. s., pl. 4, fig. 93 108
Natica magno-umbilicata, Lea, n. s., pl. 4, fig. 94 109
Natica mamma, Lea, n. s., pl. 4, fig. 95 109
Acteon punctatus, Lea, n. s., pl. 4, fig. 96 111
Acteon lineatus, Lea, n. s., pl. 4, fig. 97 112
Acteon elevatus, Lea, n. s., pl. 4, fig. 98 113
Acteon melanellus, Lea, n. s., pl. 4, fig. 99 113
Acteon striatus, Lea, n. s., pl. 4, fig. 100 114
Acteon pygmæus, Lea, n. s., pl. 4, fig. 101 114
Scalaria planulata, Lea, n. s., pl. 4, fig. 102 115
Scalaria carinata, Lea, n. s., pl. 4, fig. 103 116
Scalaria quinquefasciata, Lea, n. s 116
Delphinula plana, Lea, n. s., pl. 4, fig. 104 117
Delphinula depressa, Lea, n. s., pl. 4, fig. 105 118
Solarium bilineatum, Lea, n. s., pl. 4, fig. 106 119
Solarium Henrici, Lea, n. s., pl. 4, fig. 107 119
Solarium ornatum, Lea, n. s., pl. 4, fig. 108 120
Solarium elegans, Lea, n. s., pl. 4, fig. 109 121
Solarium cancellatum, Lea, n. s., pl. 4, fig. 110 121
Solarium granulatum, Lea, n. s., pl. 4, fig. 111 122
ORBIS, Lea, n. g 123
Orbis rotella, Lea, n. s., pl. 4, fig. 112 123
Planaria nitens, Lea, n. s., pl. 4, fig. 113 124
Turbo naticoides, Lea, n. s., pl. 4, fig. 114 125
Turbo nitens, Lea, n. s., pl. 4, fig. 115 125
Turbo lineata, Lea, n. s., pl. 4, fig. 116 126
TUBA, Lea, n. g 127
Tuba striata, Lea, n. s., pl. 4, fig. 117 128
Tuba alternata, Lea, n. s., pl. 4, fig. 118 128
Tuba sulcata, Lea, n. s., pl. 4, fig. 119 129
Turritella carinata, Lea, n. s., pl. 4, fig. 120 129
Turritella lineata, Lea, n. s., pl. 4, fig. 121 130
Cerithium striatum, Lea, n. s., pl. 4, fig. 122 131
Pleurotoma cælata, Lea, n. s., pl. 4, fig. 123 132
Pleurotoma Londsdalii, Lea, n. s., pl. 4, fig. 124 132
Pleurotoma Sayi, Lea, n. s., pl. 4, fig. 125 133
Pleurotoma monilifera, Lea, n. s., pl. 4, fig. 126 133
Pleurotoma Baumontii, Lea, n. s., pl. 4, fig. 127 134
Pleurotoma Desnoyersii, Lea, n. s., pl. 4, fig. 128 135
Pleurotoma Hæninghausii, Lea, n. s., pl. 4, fig. 129 135
Pleurotoma rugosa, Lea, n. s., pl. 4, fig. 130 136
Pleurotoma obliqua, Lea, n. s., pl. 4, fig. 131 136
Pleurotoma Childreni, Lea, n. s., pl. 4, fig. 132 137

1833. LEA, ISAAC—Continued.

Pleurotoma Lesueurii, Lea, n. s., pl. 4, fig. 133 137
Cancellaria Babylonica, Lea, n. s., pl. 5, fig. 134 138
Cancellaria multiplicata, Lea, n. s., pl. 5, fig. 135 139
Cancellaria plicata, Lea, n. s., pl. 5, fig. 136 139
Cancellaria sculptura, Lea, n. s., pl. 5, fig. 137 140
Cancellaria tessellata, Lea, n. s., pl. 5, fig. 138 140
Cancellaria elevata, Lea, n. s., pl. 5, fig. 139 141
Cancellaria costata, Lea, n. s., pl. 5, fig. 140 141
Cancellaria parva, Lea, n. s., pl. 5, fig. 141 142
Fasciolaria plicata, Lea, n. s., pl. 5, fig. 142 143
Fasciolaria elevata, Lea, n. s., pl. 5, fig. 143 143
Fusus pulcher, Lea, n. s., pl. 5, fig. 144 144
Fusus Mortonii, Lea, n. s., pl. 5, fig. 145 145
Fusus decussatus, Lea, n. s., pl. 5, fig. 146 145
Fusus bicarinatus, Lea, n. s., pl. 5, fig. 147 146
Fusus venustus, Lea, n. s., pl. 5, fig. 148 146
Fusus crebissimus, Lea, n. s., pl. 5, fig. 149 147
Fusus magnocostatus, Lea, n. s., pl. 5, fig. 150 147
Fusus Delabechii, Lea, n. s., pl. 5, fig. 151 148
Fusus ornatus, Lea, n. s., pl. 5, fig. 152 148
Fusus acutus, Lea, n. s., pl. 5, fig. 153 149
Fusus Conybearii, Lea, n. s., pl. 5, fig. 154 149
Fusus nanus, Lea, n. s., pl. 5, fig. 155 150
Fusus Fittonii, Lea, n. s., pl. 5, fig. 156 150
Fusus parvus, Lea, n. s., pl. 5, fig. 157 151
Fusus minor, Lea, n. s., pl. 5, fig. 158 151
Fusus Taïti, Lea, n. s., pl. 5, fig. 159 152
Pyrula cancellata, Lea, n. s., pl. 5, fig. 160 154
Pyrula elegantissima, Lea, n. s., pl. 5, fig. 161 155
Pyrula Smithii, Lea, n. s., pl. 5, fig. 162 155
Murex alternata, Lea, n. s., pl. 5, fig. 163 157
Rostellaria Lamarckii, Lea, n. s., pl. 5, fig. 164 158
Rostellaria Cuvieri, Lea, n. s., pl. 5, fig. 165 160
Monoceros pyruloides, Lea, n. s., pl. 5, fig. 166 161
Monoceros fusiformis, Lea, n. s., pl. 5, fig. 167 162
Monoceros sulcatum, Lea, n. s., pl. 5, fig. 168 163
Buccinum Soweerbii, Lea, n. s., pl. 5, fig. 169 164
Nassa cancellata, Lea, n. s., pl. 5, fig. 170 165
Terebra gracilis, Lea, n. s., pl. 5, fig. 171 166
Terebra costata, Lea, n. s., pl. 5, fig. 172 166
Terebra venusta, Lea, n. s., pl. 5, fig. 173 167
Mitra lineata, Lea, n. s., pl. 5, fig. 174 168
Mitra minima, Lea, n. s., pl. 6, fig. 175 168
Mitra fusoides, Lea, n. s., pl. 6, fig. 176 169
Mitra Flemingii, Lea, n. s., pl. 6, fig. 177 170
Mitra Humboldtii, Lea, n. s., pl. 6, fig. 178 171
Voluta Defrancii, Lea, n. s., pl. 6, fig. 179 171
Voluta gracilis, Lea, n. s., pl. 6, fig. 180 172
Voluta parva, Lea, n. s., pl. 6, fig. 181 173
Voluta Vanuxemi, Lea, n. s., pl. 6, fig. 182 173
Voluta striata, Lea, n. s., pl. 6, fig. 183 174
Voluta Parkinsonii, Lea, n. s., pl. 6, fig. 184 175
Voluta Cooperii, Lea, n. s., pl. 6, fig. 185 175
Marginella anatina, Lea, n. s., pl. 6, fig. 186 176
Marginella columba, Lea, n. s., pl. 6, fig. 187 177
Marginella crassilabra, Lea, n. s., pl. 6, fig. 188 177
Marginella plicata, Lea, n. s., pl. 6, 189 178
Marginella semen, Lea, n. s., pl. 6, fig. 190 178
Marginella ovata, Lea, n. s., pl. 6, fig. 191 179
Marginella incurva, Lea, n. s., pl. 6, fig. 192 179
Anolax gigantea, Lea, n. s., pl. 6, fig. 193 180
Anolax plicata, Lea, n. s., pl. 6, fig. 194 181
Oliva constricta, Lea, n. s., pl. 6, fig. 195 182
Oliva gracilis, Lea, n. s., pl. 6, fig. 196 182
Oliva Greenoughi, Lea, n. s., pl. 6, fig. 197 183

1833. LEA, ISAAC—Continued.

Oliva dubia, Lea, n. s., pl. 6, fig. 198 183
Oliva Phillipsii, Lea, n. s., pl. 6, fig. 199 184
Oliva minima, Lea, n. s., pl. 6, fig. 200 184
MONOPTYGMA, Lea, n. g 185
Monoptygma Alabamiensis, Lea, n. s., pl. 6, fig. 201 186
Conus Claibornensis, Lea, n. s 186
Supplement 187–208
Read before the Academy of Natural Sciences, Phila., October 29, 1833.
Lunulites Bouéi, Lea, n. s., pl. 6, fig. 202 189
Lunulites Duclosii, Lea, n. s., pl. 6, fig. 203 190
Orbitolites interstitia, Lea, n. s., pl. 6, fig. 204 191
Orbitolites discoidea, Lea, n. s., pl. 6, fig. 205 192
Turbinolia Macluriî, Lea, n. s., pl. 6, fig. 206 193
Turbinolia Stokesii, Lea, n. s., pl. 6, fig. 207 194
Turbinolia Goldfussii, Lea, n. s., pl. 6, fig. 208 195
Turbinolia nana, Lea, n. s., pl. 6, fig. 209 195
Turbinolia pharetra, Lea, n. s., pl. 6, fig. 210 196
Nucula magna, Lea, n. s., pl. 6, fig. 211 197
Nucula carinifera, Lea, n. s., pl. 6, fig. 212 198
Nucula plana, Lea, n. s., pl. 6, fig. 213 199
Nucula semen, Lea, n. s., pl. 6, fig. 214 200
Bulla Dekayi, Lea, n. s., pl. 6, fig. 215 200
Marginella biplicata, Lea, n. s., pl. 6, fig. 216 201
Monoptygma elegans, Lea, n. s., pl. 6, fig. 217 203
Description of bone of a Fish ?, pl. 6, fig. 218 204
Description of tooth of a Fish ?, pl. 6, fig. 219 204
Description of vertebra of a Fish ?, pl. 6, fig. 220 205
Description of spine of a Fish ?, pl. 6, fig. 221 205
Note on comparisons of the above with descriptions in M. Deshaye's work on the fossil shells of the Paris basin 207–208
Pasithea umbilicata, Lea, p. 103 207
Venericardia rotundata, Lea 207
Pectunculus obliqua, Lea 208
Ostrea divaricata, Lea 208
Solen Blainvillii, Lea 208
New Tertiary Fossil Shells | from | Maryland and New Jersey. | Read before the American Philosophical Society, November 1, 1833 209–216
Balanus Finchii, Lea, n. s., pl. 6, fig. 222 211
St. Mary's, Maryland, John Finch.
Mactra clathrodon, Lea, n. s., pl. 6, fig. 223 212
St. Mary's, Maryland, John Finch.
Acteon Wetherilli, Lea, n. s., pl. 6, fig. 224 213
Deal, New Jersey.
Rotella nana, Lea, n. s., pl. 6, fig. 225 214
St. Mary's, Maryland, John Finch.
Fusus pumilus, Lea, n. s., pl. 6, fig. 226 215
St. Mary's, Maryland, John Finch.
Miliola Marylandica, Lea, n. s., pl. 6, fig. 227 215
St. Mary's, Maryland, John Finch.
Description of a new genus of the Family Spherulacea of Blainville, from the Cretaceous deposit of Timber Creek, New Jersey 217–220
Read before the American Philosophical Society, November 1, 1833.
PALMULA, Lea, n. g 219
Palmula sagittaria, Lea, n. s., pl. 6, fig. 228 219
Tufaceous Lacustrine Formation of Syracuse, Onondaga County, New York 223–227
Read before the American Philosophical Society, November 1, 1833.

19.

1834. LEA, ISAAC. Ueber den Winterschlaf. <*Notizen aus dem Gebiete der Natur- und Heilkunde, gesammelt und mitgetheilt von Ludwig Friedrich v. Froriep*, xxxix, 1834, col. 161–168.

Translation from *Amer. Journ. Sci. & Arts*, ix, 1825, pp. 75–83.

20.

9-34. LEA, ISAAC. Observations on the Naïades; and Descriptions of New Species of that and other Families. <*Trans. Amer. Philos. Soc.*, N. S., v, pp. 23–119.

This consists of four parts & index.

The Main part 23–59

Read March 16, 1832.

Supplement 59–94

Read March 15, 1833.

Second Supplement 95–113

Read February 7, 1834.

Last part 114–117

Read April 18, 1834.

Systematic Index of the Shells described in Mr. Lea's Memoirs 118–119

The whole issued, printed, some time in August or September, 1834. (See *Proc. Acad. Nat. Sci. Phila.*, vii, p. 244.)

Preliminary Remarks 23–27

Unio Nichlinianus, Lea, n. s., pl. i, fig. 1 28

Hab.: China.

Unio capillaris, Lea, n. s., pl. ii, fig. 2 29

Hab.: Ohio, T. G. Lea.

Unio subglobosus, Lea, n. s., pl. ii, fig. 3 30

Hab.: Bayou Teche, Louisiana, W. M. Stewart.

Unio capsaeformis, Lea, n. s., pl. ii, fig. 4 31

Hab.: Cumberland River, W. Cooper.

Unio Ravenelianus, Lea, n. s., pl. iii, fig. 5 32

Hab.: French Broad River, tributary to the Tennessee, near Asheville, N. C., Professor Ravenel.

Unio Murchisonianus, Lea, n. s., pl. iii, fig. 6 33

Hab.: China, Mrs. Murchison.

Unio Haysianus, Lea, n. s., pl. iii, fig. 7 35

Hab.: Cumberland River, Professor Troost.

Unio Hildrethianus, Lea, n. s., pl. iii, fig. 8 36

Hab.: Ohio, near Marietta, Dr. Hildreth.

Unio Schoolcraftensis, Lea, n. s., pl. iii, fig. 9 37

Hab.: Fox River of Green Bay, Mr. Schoolcraft.

Unio geometricus, Lea, n. s., pl. iv, fig. 10 38

Hab.: Bayou Teche, Louisiana, W. M. Stewart.

Unio Taitianus, Lea, n. s., pl. iv, fig. 11 39

Hab.: Alabama River, Judge Tait.

Unio lacteolus, Lea, n. s., pl. viii, fig. 19 40

Hab.: Rio de la Plata.

Symphynota globosa, Lea, n. s., pl. iv, fig. 12 41

Hab.: River Ohio, 150 miles below Louisville, Col. Long.

Symphynota Woodiana, Lea, n. s., pl. v, fig. 13 42

Hab.: China, W. W. Wood.

Symphynota magnifica, Lea, n. s., pl. v, fig. 14 43

Hab.: China, W. W. Wood.

Anodonta Ferussaciana, Lea, n. s., pl. vi, fig. 15 45

Hab.: Ohio River, near Cincinnati, T. G. Lea.

Anodonta incerta, Lea, n. s., pl. vi, fig. 16 46

Hab.: Ohio River, near Cincinnati, T. G. Lea.

Anodonta Stewartiana, Lea, n. s., pl. vi, fig. 17 47

Hab.: River Teche, Louisiana, W. M. Stewart.

Anodonta palna, Lea, n. s., pl. vii, fig. 18 48

Hab.: Bear Grass Creek, near Louisville, Mr. T. H. Taylor.

Helicina lens, Lea, n. s., pl. xix, fig. 56 49

Hab.: Feejee Islands, W. W. Wood.

Helicina pulcherrima, Lea, n. s., pl. xix, fig. 57 49

Hab.: Java.?

Helicina virginea, Lea, n. s., pl. xix. fig. 58 50

Hab.: Java.?

Helix muscarum, Lea, n. s., pl. xix, fig. 59 51

Hab.: Society Islands, Pacific Ocean, Lieutenant Dornin.

Helix purpuragula, Lea, n. s., pl. xix, fig. 60 51

Hab.: Java.?

1832–34. LEA, ISAAC—Continued.

Helix ovum reguli, Lea, n. s., pl. xix, fig. 61 52
Hab.: Java.?

Helix monodonta, Lea, n. s., pl. xix, fig. 62 53
Hab.: Java?

Helix cyclostomopsis, Lea, n. s., pl. xix, fig. 63 53
Hab.: ——.

Helix mamilla, Lea, n. s., pl. xix, fig. 64 54
Hab.: ——.

Helix diaphana, Lea, n. s., pl. xix, fig. 65 54
Hab.: ——.

Helix Himalana, Lea, n. s., pl. xix, fig. 66 55
Hab.: Himalaya Mountains, Dr. Burrough.

Helix vesica, Lea, n. s., pl. xix, fig. 67 56
Hab.: ——.

Helix cincta, Lea, n. s., pl. xix, fig. 68 56
Hab.: Java.?

Helix Woodiana, Lea, n. s., pl. xix, fig. 69 57
Hab.: China, near Canton, W. W. Wood.

Helix globula, Lea, n. s., pl. xix, fig. 70 58
Hab.: China, near Canton, W. W. Wood.

Paludina bi-monilifera, Lea, n. s., pl. xix, fig. 71 58
Hab.: Alabama River, Judge Tait.

SUPPLEMENT.

Read March 15, 1833.

Unio parallelopipedon, Lea, n. s., pl. viii, fig. 20 60
Hab.: River Parana, Province of Corrientes.

Unio Cooperianus, Lea, n. s., pl. viii, fig. 21 61
Hab.: River Ohio, T. G. Lea.

Unio emarginatus, Lea, n. s., pl. ix, fig. 22 62
Hab.: ——.

Unio Conradicus, Lea, n. s., pl. ix, fig. 23 63
Hab.: ——, Prof. Troost.

Unio divaricatus, Lea, n. s., pl. ix, fig. 24 64
Hab.: Egypt, Duke de Rivoli.

Unio Corrianus, Lea, n. s., pl. ix, fig. 25 65
Hab.: India, Mrs. Corrie.

Unio Grayanus, Lea, n. s., pl. ix, fig. 26 66
Hab.: China.

Unio Burroughianus, Lea, n. s., pl. x, fig. 27 67
Hab.: River Parana, Province of Corrientes, Dr. Burrough.

Unio Sowerbianus, Lea, n. s., pl. x, fig. 28 68
Hab.: Tennessee, G. B. Sowerby.

Unio dromas, Lea, n. s., pl. x, fig. 29 70
Hab.: Harpeth River, Tennessee, Prof. Conrad.

Unio Troostensis, Lea, n. s., pl. x, fig. 30 71
Hab.: Cumberland River, Prof. Troost.

Unio perdix, Lea, n. s., pl. xi, fig. 31 72
Hab.: Harpeth River, Tennessee, Prof. Troost.

Unio Pictus, Lea, n. s., pl. xi, fig. 32 73
Hab.: Harpeth River, Tennessee, Prof. Troost.

Symphynota discoidea, Lea, n. s., pl. xi, fig. 33 75
Hab.: ——, G. B. Sowerby; China, Dr. Burrough.

Anodonta lato-marginata, Lea, n. s., pl. xii, fig. 34 76
Hab.: River Parana, South America, Dr. Burrough.

Anodonta Blainvilliana, Lea, n. s., pl. xii, fig. 35 77
Hab.: Chili.?

Anodonta tenebricosa, Lea, n. s., pl. xii, fig. 36 78
Hab.: River Parana, South America, Dr. Burrough.

Anodonta Mortoniana, Lea, n. s., pl. xiii, fig. 37 80
Hab.: River Parana, South America, Dr. Burrough.

Melania aculeus, Lea, n. s., pl. xix, fig. 72 81
Hab.: Java.?

Lymnæa imperialis, Lea, n. s., pl. xix, fig. 73 81
Hab.: South America?

1832–34. LEA, ISAAC—Continued.

Melanopsis princeps, Lea, n. s., pl. xix, fig. 74 81
Hab.: Cape of Good Hope.

Melanopsis maculata, Lea, n. s., pl. xix, fig. 75 82
Hab.: Peru, Lieutenant Humphreys.

Auricula fuscagula, Lea, n. s., pl. xix, fig. 76 83
Hab.: Brazil.

Cyclostoma striata, Lea, n. s., pl. xix, fig. 77 84
Hab.: Peru, Lieutenant Humphreys.

Achatina Vanuxemensis, Lea, n. s., pl. xix, fig. 78 84
Hab.: Mexico, Professor Vanuxem.

Concluding remarks containing notes upon the habitat, etc., of *Unio brevidens*, Lea, and *Unio arcæformis* 85–86

Foot-note changing *Cochlicopa rosea* (Fer.), to *Achatina striata* 85

Observations on Lamarck's Naïades 86–94

"Having had the opportunity, while in Paris recently, to inspect most of the cabinets to which Lamarck refers in his description of the *Naïades*, I seized the opportunity to examine the *individual specimens* from which he made his descriptions; and having made notes on the spot, I feel great confidence as to the facts, and trust that my judgment as to the decisions on his species will be found to be correct."

Unio sinuata 86
Unio elongata 87
Unio crassidens 87
Unio Peruviana 87
Unio purpurata 87
Unio ligamentina 88
Unio obliqua 88
Unio retusa 88
Unio variculcata 88
Unio coarctata 88
Unio purpurascens 88
Unio radiata 88
Unio brevialis 88
Unio rhombula 88
Unio carinifera 89
Unio Georgina 89
Unio clava 89
Unio recta 89
Unio naviformis 89
Unio glabrata 89
Unio nasuta 89
Unio ovata 89
Unio rotundata 89
Unio littoralis 89
Unio semirugata 90
Unio nana 90
Unio delodonta 90
Unio euloidens 90
Unio rostrata 90
Unio Batava 90
Unio nodulosa 91
Unio varicosa 91
Unio granosa 91
Unio depressa 91
Unio Virginiana 91
Unio luteola 92
Unio angusta 91
Unio manca 91
Unio carious 92
Unio spuria 92
Unio australis 92
Unio anodontina 92
Unio suborbiculata 92
Hyria avicularis 92
Hyria corrugata 92
Anodonta cygnea 92

1832-34. LEA, ISAAC—Continued.

Anodonta anatina 92
Anodonta sulcata 93
Anodonta fragilis 93
Anodonta rubens 93
Anodonta crispata 93
Anodonta uniopsis 93
Anodonta Pennsylvanica 93
Anodonta intermedia 93
Anodonta trapezialis 93
Anodonta exotica 93
Anodonta glauca 94
Anodonta sinuosa 94
Anodonta Patagonica 94
Iridina exotica 94

SECOND SUPPLEMENT.

Read February 7, 1834.

Unio Shepardianus, Lea, n. s., pl. xiii, fig. 38 95
Hab.: Hopeton, near Darien, Georgia, Professor Shepard.
Unio fulvus, Lea, n. s., pl. xiii, fig. 39 96
Hab.: South Carolina, Dr. Blanding.
Unio modioliformis, Lea, n. s., pl. xiii, fig. 40 97
Hab.: Santee Canal, South Carolina, Professor Ravenel.
Unio Kirtlandianus, Lea, n. s., pl. xiv, fig. 41 98
Hab.: Mahoning, Ohio, J. P. Kirtland, M. D.
Unio Paranensis, Lea, n. s., pl. xiv, fig. 42 99
Hab.: River Parana, Dr. Burrough.
Unio Nashvillianus, Lea, n. s., pl. xiv, fig. 43 100
Hab.: Cumberland River, Professor Troost.
Unio Blandingianus, Lea, n. s., pl. xv, fig. 44 101
Hab.: St. John's River, Florida, Dr. Blanding.
Unio camelus, Lea, n. s., pl. xv, fig. 45 102
Hab.: Ohio River, T. G. Lea.
Unio Griffithianus, Lea, n. s., pl. xv, fig. 46 103
Hab.: South Carolina, Prof. Ravenel.
Unio confertus, Lea, n. s., pl. xvi, fig. 47 103
Hab.: Santee Canal, South Carolina, Professor Ravenel.
Symphynota Benedictensis, Lea, n. s., pl. xvi, fig. 48 104
Hab.: Lake Champlain.
Anodonta Burroughiana, Lea, n. s., pl. xvi, fig. 49 105
Hab.: Island of Luconia, near Manilla, Dr. Burrough.
Margaritana Raveneliana, Lea, n. s., pl. xvii, fig. 50 106
Hab.: French Broad and Swananoa Rivers, North Carolina.
Cyrena rotundata, Lea, n. s., pl. xvii, fig. 51 107
Hab.: ——.
Cyrena Javensis, Lea, n. s., pl. xvii, fig. 52 108
Hab.: Batavia, J. C. Jay, M. D.
Cyrena turgida, Lea, n. s., pl. xviii, fig. 53 109
Hab.: —— India, Rev. William Carey.
Cyrena Woodiana, Lea, n. s., pl. xviii, fig. 55 110
Hab.: Canton, W. W. Wood.
APHRODITE, Lea, n. g 111
Aphrodite columba, Lea, n. s., pl. xviii, fig. 54 111
Hab.: ——.
Io spinosa, Lea, n. s., pl. xix, fig. 79 112
Hab.: Holston River, Washington County, Virginia, Professor Troost.
Paludina Burroughiana, Lea, n. s., pl. xix, fig. 80 113
Hab.: Island of Luconia, Dr. Burrough.

LAST PART.

Read April 18, 1834.

Lymnæa acuta, Lea, n. s., pl. xix, fig. 81 114
Hab.: Pond four miles north of Philadelphia.
Lymnæa exilis, Lea, n. s., pl. xix, fig. 82 114
Hab.: Ohio, T. G. Lea.
Physa elliptica, Lea, n. s., pl. xix, fig. 83 115
Hab.: ——, T. G. Lea.

1832-34. LEA, ISAAC—Continued.

Ampullaria Hopetonensis, Lea, n. s., pl. xix, fig. 84 115
Hab.: Hopeton, near Darien, Georgia, Professor Shepard.

Paludina Georgiana, Lea, n. s., pl. xix, fig. 85 116
Hab.: Hopeton, near Darien, Georgia, Professor Shepard.

Succinea retusa, Lea, n. s., pl. xix, fig. 86 117
Hab.: Ohio, near Cincinnati, T. G. Lea.

Systematic Index of the Shells Described in Mr. Lea's Memoirs: *Trans. Am. Phil. Soc.*, volumes iii, iv, and v 118-119

21.

1834. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descriptions of New Genera and Species in the Families | Naïades, Conchæ, Colimacea, Lymnæana, Me- | laniana and Peristomiana: | consisting of | four memoirs read before the American Philosophical Society from | 1827 to 1834, and originally published in their Transactions, | with numerous coloured plates. | by Isaac Lea, | [Title] | Philadelphia: | Printed for the Author, | by James Kay, Jun. and Co. 4°. 4 leaves and pp. 233, with 46 plates.

This volume, dedicated to Philip Houlbrooke Nicklin, M. A., is I of Dr. Lea's series of "Observations on the Genus Unio," and consists of numbers 17 and 20 of this Catalogue. Noticed in *Amer. Journ. of Science and Arts*, xvii, 1835, p. 371.

22.

1835. LEA, ISAAC, *and* W. H. BENSON. Characters of three new species of Indian freshwater Bivalves. <*Journ. Asiatic Society of Bengal*, iv, 1835, pp. 450-454.

Article not seen.

23.

1836. LEA, ISAAC. A | Synopsis | of the | Family of Naïades, | by | Isaac Lea, | Member of the American Philosophical Society, | etc., etc. | Philadelphia: | Carey, Lea and Blanchard. | London: | John Miller. | 1836. 8°. pp. viii, 1-59. 2 leaves.

1 plate with colored figures of *Unio spinosus*, Lea.

INTRODUCTION.

"This systematic arrangement and synonymy was communicated to the American Philosophical Society in July last nearly in the form in which it is now printed. It was undertaken purely with the view and in the hope of clearing away the difficulties which had incumbered one of the most interesting families of the Mollusca. * * * In attempting to establish the synonymy, he has endeavoured to render the strictest justice, and if in any case it is found he has failed to do this, it will be a matter of sincere regret to him.

In the following tables there will be found in the family 300 recent species as admitted, 22 as doubtful, and 22 fossil; in all 344.

Of the sub-genus *Unio* there are 226 species in a recent state, and 14 which I have not been able to admit as certain; of fossil species 21.

Of the sub-genus *Margaritana* there are 14 admitted species, and 2 which are unknown to me.

Of the sub-genus *Dipsas* I know of but two species, both of which are recent.

Of the sub-genus *Anodonta* there are 50 admitted species, and 6 which are unknown to me. Of fossil species there is one which is doubtful.

Of the sub-genus *Pleiodon* there is but one species, and that recent.

The genus Iridina has 7 species, all recent."

CONTENTS.

Introduction v
List of Authors vii
Division of the Family Naïades 1
Genus Margarita 10
Sub-genus Unio 10
Sub-genus Margaritana 43
Sub-genus Dipsas 47
Sub-genus Anodonta 48
Sub-genus Pleiodon 55

1836. LEA, ISAAC—Continued.

Genus Iridina ..... [illegible]
List of Prof. Rafinesque's species not identified ..... [illegible]
Addenda ..... [illegible]
Errata ..... [illegible]

This synopsis contains the names of many new species the descriptions of which at the time of its publication had been read before the American Philosophical Society, and which were published in 1838 in volume vi of that Society's Transactions. (See No. 27.)

24.

1836. LEA, ISAAC. Description of a new species of the genus *Unio* (*spinosus*), 1836. 4°. pp. —, colored figures.

25.

1837. LEA, ISAAC. Neue Gattungen von Najaden. <*Faunus; Zeitschrift für Zoologie und vergleichenden Anatomie; von Joh. Gistl.* 8°. München, i, 1837 (pte. 6), pp. 43–53.

26.

1837. LEA, ISAAC. (Title unknown). <*Gistl, Faunus*, i, 1837 (pte. 16), p. 83.

This refers to No. 16. Description of a new genus (*Io*) of the family Melaniana, Lamarck (*Io fusiformis* in *Amer. Philos. Soc. Trans.*, iv, pp. 122–124.)

27.

1834–38. LEA, ISAAC. Description of New Freshwater and Land Shells. <*Trans. Amer. Philos. Soc.*, vi, n. s., pp. 1–154. Article I, pls. i–xxiv, colored.

Part I of vol. vi of the Transactions printed and ready for distribution June 15, 1838. (See *Proc. Amer. Philos. Soc.*, i, 1838, p. 19.)

Article I consists of the following parts:

First part 1–18
Read December 19, 1834.
Continuation 19–20
Read January 2, 1835.
Continuation 21–22
Read September 18, 1835.
Continuation 23–48
Read February 5, 1836.
Continuation 49–69
Read July 15, 1836.
Continuation 69–72
Read August 19, 1836.
Continuation 73–94
Read November 4, 1836.
Continuation 95–102
Read July 21, 1837.
Continuation 103–108
Read January 5, 1838.
Continuation 108–109
Read January 19, 1838.
Systematic Index of Shells Described 110–111
Synopsis of the Family of Naiades 112–151
List of Authors 152
Contents 153
Errata 154
First Part ..... i–x
Read December 19, 1834.
Anodonta gigantea, Lea, n. s., pl. i, fig. 1 1
Hab.: near Port Gibson, T. W. Robeson.
Anodonta ovata, Lea, n. s., pl. ii, fig. 2 2
Hab.: near Marietta, Ohio, Dr. Hildreth.
Unio bengalensis, Lea, n. s., pl. ii, fig. 3 3
Hab.: Bengal, Dr. Burrough.
Unio venustus, Lea, n. s., pl. ii, fig. 4 4
Hab.: Potosi, Missouri, John Perry, Esq.

1834-38. LEA, ISAAC—Continued.

Unio Vaughanianus, Lea, n. s., pl. iii, fig. 5 5
Hab.: Sawney's Creek, near Camden, S. C., Professor Ravenel.

Unio pulcher, Lea, n. s., pl. iii, fig. 6 6
Hab.: near Nashville, Tenn., Professor Troost.

Unio obscurus, Lea, n. s., pl. iii, fig. 7 7
Hab.: near Nashville, Tenn., Professor Troost.

Unio Fisherianus, Lea, n. s., pl. iv, fig. 8 8
Hab.: Head of Chester River, Md., Mr. Thomas Fisher.

Unio jejunus, Lea, n. s., pl. iv, fig. 8 9
Hab.: Roanoke, also near Camden, S. C., Dr. Blanding.

Unio arctior, Lea, n. s., pl. iv, fig. 10 10
Hab.: Ohio River, near Cincinnati, T. G. Lea.

Unio turgidus, Lea, n. s., pl. v, fig. 11 11
Hab.: near New Orleans, Mr. Barabino.

Unio coccineus, Lea, n. s., pl. v, fig. 12 12
Hab.: Ohio River, near Marietta, Dr. Hildreth; Mahoning River, Ohio, Dr. Kirtland; near Columbus, Ohio, Mr. Lapham.

Unio solidus, Lea, n. s., pl. v, fig. 13 13
Hab.: Ohio River, at Cincinnati, T. G. Lea.

Unio Hydianus, Lea, n. s., pl. vi, fig. 14 14
Hab.: Teche River, Louisiana, W. M. Stewart.

Unio interruptus, Lea, n. s., pl. vi, fig. 15 15
Hab.: Harpeth River, Tenn., Professor Troost.

Ampullaria Pealiana, Lea, n. s., pl. xxiii, fig. 77 16
Hab.: Turbaco, Colombia, South America, T. R. Peale.

Paludina hyalina, Lea, n. s., pl. xxiii, fig. 81 17
Hab.: near Poland, Ohio, Dr. Kirtland.

Melania inflata, Lea, n. s., pl. xxiii, fig. 98 17
Hab.: Indian Creek, Va., west of Alleghany Mountains, P. H. Nicklin.

Physa aurea, Lea, n. s., pl. xxiii, fig. 106 18
Hab.: Hot Spring, Bath County, Virginia, P. H. Nicklin.

CONTINUATION.

Read January 2, 1835.

Unio lamellatus, Lea, n. s., pl. vi, fig. 16 19
Hab.: Bengal, Captain Lang.

Melania plicata, Lea, n. s., pl. xxiii, fig. 95 20
Hab.: Bengal?

CONTINUATION.

Read September 18, 1835.

MEGASPIRA, Lea, n. g 21

Megaspira Ruschenbergiana, Lea, n. s., pl. xxiii, fig. 101 21
Hab.: Brazil? W. S. W. Ruschenberger, M. D.

Paludina pallida, Lea, n. s., pl. xxiii, fig. 104 22
Hab.: near Cincinnati, Ohio, T. G. Lea.

CONTINUATION.

Read February 5, 1836.

Unio pumilus, Lea, n. s., pl. vii, fig. 17 23
Hab.: Black River, North Carolina.

Unio Tampicoensis, Lea, n. s., pl. vii, fig. 18 24
Hab.: River Tampico, Mexico; River Medellin, Mexico, Dr. Burrough.

Unio Cumberlandicus, Lea, n. s., pl. vii, fig. 19 25
Hab.: Cumberland River, Tenn., Prof. Troost.

Unio simus, Lea, n. s., pl. viii, fig. 20 26
Hab.: Cumberland River, Tenn., Prof. Troost.

Unio Roanokensis, Lea, n. s., pl. viii, fig. 21 27
Hab.: Roanoke River, North Carolina; Altamaha, Georgia, Professor Nuttall and Major Leconte.

Unio notatus, Lea, n. s., pl. viii, fig. 22 28
Hab.: Cumberland River, Prof. Troost.

Unio Jayensis, Lea, n. s., pl. ix, fig. 23 28
Hab.: Florida, J. C. Jay, M. D.

Unio Hopetonensis, Lea, n. s., pl. ix, fig. 24 29
Hab.: Hopeton, near Darien, Prof. Shepard.

Unio lugubris, Lea, n. s., pl. ix, fig. 25 30
Hab.: Hopeton, near Darien, Prof. Shepard.

1834-38. LEA, ISAAC—Continued.

Unio Barnesianus, Lea, n. s., pl. x, fig. 26 31
Hab.: Cumberland River, Tenn., Prof. Troost.

Unio Zeiglerianus, Lea, n. s., pl. x, fig. 27 32
Hab.: Cumberland River, Tenn., Prof. Troost.

Unio creperus, Lea, n. s., pl. x, fig. 28 33
Hab.: Tennessee, Professor Troost.

Unio glaber, Lea, n. s., pl. x, fig. 29 34
Hab.: Holston River, Tenn., Professor Troost.

Unio gibber, Lea, n. s., pl. x, fig. 30 35
Hab.: Carryfork River, Tenn., Professor Troost.

Unio Vanuxemensis, Lea, n. s., pl. xi, fig. 31 36
Hab.: Cumberland River, Tenn., Professor Troost.

Unio carbonarius, Lea, n. s., pl. xi, fig. 32 37
Hab.: River Medellin, Mexico, Dr. Burrough.

Unio folliculatus, Lea, n. s., pl. xi, fig. 33 38
Hab.: Savannah River, Major Leconte.

Unio medellinus, Lea, n. s., pl. xii, fig. 34 39
Hab.: River Medellin, near Vera Cruz, Dr. Burrough.

Unio Lecontianus, Lea, n. s., pl. xii, fig. 35 40
Hab.: Conoochee River, Georgia, Major Leconte.

Unio Muhlfeldianus, Lea, n. s., pl. xii, fig. 36 41
Hab.: Cumberland River, Tenn., Professor Troost.

Margaritana Holstonia, Lea, n. s., pl. xiii, fig. 37 42
Hab.: Holston River, Professor Troost.

Margaritana deltoidea, Lea, n. s., pl. xiii, fig. 38 43
Hab.: Ohio River, near Cincinnati, T. G. Lea; Scioto, Dr. Kirtland.

Margaritana fabula, Lea, n. s., pl. xiii, fig. 39 44
Hab.: Cumberland River, Tenn., Prof. Troost.

Anodonta cylindracea, Lea, n. s., pl. xiii, fig. 40 45
Hab.: River Medellin, near Vera Cruz, Dr. Burrough.

Anodonta salmonia, Lea, n. s., pl. xiv, fig. 41 45
Hab.: Near Poland, Ohio, J. P. Kirtland, M. D.

Anodonta Wardiana, Lea, n. s., pl. xiv, fig. 42 46
Hab.: Near Chillicothe, Ohio, J. C. Ward, M. D.

Anodonta Buchanensis, Lea, n. s., pl. xiv, fig. 43 47
Hab.: Buck Creek, Ohio, R. Buchanan, Esq.

CONTINUATION.

Read July 15th, 1836.

Remarks upon the differences in the male and female shells among the Unionidæ and upon the structure of the oviducts producing these differences 48-57

Unio spinosus, Lea, pl. xvi, fig. 50 57
Described in 1836 in No. 24, and a plate was issued in Mr. Lea's Synopsis in 1836.

Unio plicíferus, Lea, n. s., pl. xvii, fig. 53 61
Hab.: Mexico, Dr. Burrough.

Unio Tappanianus, Lea, n. s., pl. xvii, fig. 55 62
Hab.: Juniata, near Hollidaysburg, Dr. Kirtland.

Anodonta decora, Lea, n. s., pl. xx, fig. 63 64
Hab.: Canal, near Cincinnati, Ohio, T. G. Lea.

Bulimus lacteus, Lea, n. s., pl. xxiii, fig. 100 65
Hab.: About one hundred miles up the Magdalena River, Colombia, T. R. Peale.

Bulimus Pealianus, Lea, n. s., pl. xxiii, fig. 105 65
Hab.: Near the Rapids of Angostura, Colombia, T. R. Peale.

Bulimus Colombianus, Lea, n. s., pl. xxiii, fig. 110 66
Hab.: About one hundred miles up the Magdalena River, Colombia, T. R. Peale.

Bulimus corneus, Lea, n. s., pl. xxiii, fig. 111 66
Hab.: Buenavista, Colombia, T. R. Peale.

Helix Wardiana, Lea, n. s., pl. xxiii, fig. 82 67
Hab.: Near Cincinnati, Ohio, T. G. Lea; near Chillicothe, Ohio, C. J. Ward, M. D.

Cyclostoma maculata, Lea, n. s., pl. xxiii, fig. 87 68
Hab.: Manila, W. W. Wood.

Planorbis lens, Lea, n. s., pl. xxiii, fig. 83 68
Hab.: Near Cincinnati, Ohio, R. Buchanan.

CONTINUATION.

Read August 19th, 1836.

Unio graniferus, Lea, n. s., pl. xix, fig. 60 69
Hab.: Ohio River, near Cincinnati, T. G. Lea.

1834-38. LEA, ISAAC—Continued.

Unio splendidus, Lea, n. s., pl. xix, fig. 61 70
Hab.: Altamaha River, near Darien, Georgia, James Hamilton Cowper, Esq.

Margaritana arcula, Lea, n. s., pl. xxii, fig. 69 71
Hab.: Altamaha, Liberty County, Georgia, Lewis Leconte, Esq.

CONTINUATION.

Read November 4th, 1836.

Unio Dorfeuillianus, Lea, n. s., pl. xvii, fig. 54 73
Hab.: Ohio River, Mr. Dorfeuille, Cincinnati.

Unio discus, Lea, n. s., pl. xviii, fig. 57 74
Hab.: India.

Unio contradens, Lea, n. s., pl. xviii, fig. 58 75
Hab.: ——.

Unio Menkianus, Lea, n. s., pl. xix, fig. 59 76
Hab.: Harpeth River, Tenn., Professor Troost.

Anodonta Nuttalliana, Lea, n. s., pl. xx, fig. 62 77
Hab.: Wahlamat, near its junction with the Columbia River, Prof. Nuttall.

Anodonta Wahlamatensis, Lea, n. s., pl. xx, fig. 64 78
Hab.: Wahlamat, near its junction with the Columbia River, Professor Nuttall.

Anodonta pavonia, Lea, n. s., pl. xxi, fig. 65 78
Hab.: Head waters of the Little Beaver, Ohio, J. P. Kirtland, M. D.

Anodonta Newtoniensis, Lea, n. s., pl. xxi, fig. 66 79
Hab.: Newtown Creek, New Jersey, near Philadelphia, Wm. Hyde. Also Schuylkill, at Fairmount.

Anodonta Oregonensis, Lea, n. s., pl. xxi, fig. 67 80
Hab.: Wahlamat, near its junction with the Columbia River, Professor Nuttall.

Anodonta exilis, Lea, n. s., pl. xxii, fig. 68 81
Hab.: ——

Iridina cœlestis, Lea, n. s., pl. xxii, fig. 70 82
Hab.: Africa.

Bulimus glandiformis, Lea, n. s., pl. xxiii, fig. 92 83
Hab.: New Granada, between La Plata and Tocaima, J. H. Gibbon, M. D.

Bulimus parvus, Lea, n. s., pl. xxiii, fig. 96 84
Hab.: Near Carthagena, S. A., J. H. Gibbon, M. D.

Bulimus virgo, Lea, n. s., pl. xxii, fig. 97 84
Hab.: Near Carthagena, S. A., J. H. Gibbon, M. D.

Bulimus Gibbonius, Lea, n. s., pl. xxiii, fig. 99 85
Hab.: New Granada, between La Plata and Tocaima, J. H. Gibbon, M. D.

Bulimus gracilis, Lea, n. s., pl. xxiii, fig. 102 85
Hab.: Near Carthagena, S. A., J. H. Gibbon, M. D.

Bulimus decoratus, Lea, n. s., pl. xxiii, fig. 108 86
Hab.: Near Carthagena, S. A., J. H. Gibbon, M. D.

Bulimus maculatus, Lea, n. s., pl. xxiii, fig. 112 86
Hab.: Near Carthagena, S. A., J. H. Gibbon, M. D.

Helix Mitchelliana, Lea, n. s., pl. xxiii, fig. 71 87
Hab.: Ohio, J. K. Mitchell, M. D.

Helix Vancouverensis, Lea, n. s., pl. xxiii, fig. 72 87
Hab.: Fort Vancouver, Oregon, Prof. Nuttall.

Helix Nuttalliana, Lea, n. s., pl. xxiii, fig. 74 88
Hab.: From Fort Vancouver down to the ocean, Oregon, Professor Nuttall.

Helix Columbiana, Lea, n. s., pl. xxiii, fig. 75 89
Hab.: Fort Vancouver, Oregon, Professor Nuttall.

Helix magnifica, Lea, n. s., pl. xxiii, fig. 88 89
Hab.: New Granada, J. H. Gibbon, M. D.

Paludina sinistrosa, Lea, n. s., pl. xxiii, fig. 78 90
Hab.: East Indies, Miss Hodges.

Paludina virens, Lea, n. s., pl. xxiii, fig. 93 91
Hab.: Wahlamat, near its junction with the Columbia River, Professor Nuttall.

Paludina nuclea, Lea, n. s., pl. xxiii, fig. 103 91
Hab.: Wahlamat, near its junction with the Columbia River, Professor Nuttall.

Paludina Nicklíniana, Lea, n. s., pl. xxiii, fig. 109 92
Hab.: Hot Springs, Virginia, P. H. Nicklin.

Melania Troostiana, Lea, n. s., pl. xxiii, fig. 86 92
Hab.: Mossy Creek, Jefferson County, Tenn., Prof. Troost.

Melania plicifera, Lea, n. s., pl. xxiii, fig. 90 93
Hab.: Wahlamat, near its junction with the Columbia River, Prof. Nuttall.

1834–38. LEA, ISAAC—Continued.

Cyclostoma Popayana, Lea, n. s., pl. xxiii, fig. 76 94
Hab.: New Granada, near Popayan, J. H. Gibbon, M. D.

Lymnea solida, Lea, n. s., pl. xxiii, fig. 91 94
Hab.: Wahlamat, near its junction with the Columbia River, Prof. Nuttall.

CONTINUATION.

Read July 21, 1837.

Unio Rangianus, Lea, n. s., pl. xviii, fig. 56 95
Hab.: Ohio River, near Cincinnati, T. G. Lea.

Anodonta Pepinianus, Lea, n. s., pl. xvi, fig. 51 96
Hab.: Lake Pepin, Portage County, Ohio, B. Tappan, esq.

Anodonta angulata, Lea, n. s., pl. xvi, fig. 52 97
Hab.: Lewis's River, Prof. Nuttall.

Carocolla Hydiana, Lea, n. s., pl. xxiii, fig. 73 98
Hab.: Near Porto Cabello, S. A., J. H. Gibbon, M. D.

Helix Californiensis, Lea, n. s., pl. xxiii, fig. 79 99
Hab.: St. Diego, Upper California, Prof. Nuttall.

Helix Townsendiana, Lea, n. s., pl. xxiii, fig. 80 99
Hab.: Wahlamat, near its junction with the Columbia River, Prof. Nuttall.

Helix Nicklíniana, Lea, n. s., pl. xxiii, fig. 84 100
Hab.: St. Diego, Upper California, Prof. Nuttall.

Helix Oregonensis, Lea, n. s., pl. xxiii, fig. 85 100
Hab.: Wahlamat, near its junction with the Columbia River, Prof. Nuttall.

Succinea aperta, Lea, n. s., pl. xxiii, fig. 107 101
Hab.: Banks of Columbia River, Prof. Nuttall.

Paludina Nuttalliana, Lea, n. s., pl. xxiii, fig. 89 101
Hab.: Wahlamat, near its junction with the Columbia River, Prof. Nuttall.

Lymnea apicina, Lea, n. s., pl. xxiii, fig. 94 102
Hab.: Wahlamat, near its junction with the Columbia River, Professor Nuttall.

CONTINUATION.

Read January 5, 1838.

Unio dolabræformis, Lea, n. s., pl. xxiv, fig. 113 103
Hab.: Altamaha River, Liberty County, Georgia, Lewis Leconte, esq.

Unio Novi-Eboraci, Lea, n. s., pl. xxiv, fig. 114 104
Hab.: Oak Orchard Creek, Orleans County, New York, J. C. Jay, M. D.

Unio Claibornensis, Lea, n. s., pl. xxiv, fig. 115 105
Hab.: Alabama River, near Claiborne, Judge Tait.

Anodonta subcylindracea, Lea, n. s., pl. xxiv, fig. 117 106
Hab.: Oak Orchard Creek, Orleans County, New York, J. C. Jay, M. D.

Polygyra Dorfeuilliana, Lea, n. s., pl. xxiv, fig. 118 107
Hab.: Ohio, Mr. Dorfeuille, Cincinnati.

Polygyra Troostiana, Lea, n. s., pl. xxiv, fig. 119 107
Hab.: Tennessee, Prof. Troost.

CONTINUATION.

Read January 19, 1838.

Unio Brownianus, Lea, n. s., pl. xxiv, fig. 116 108
Hab.: River Amazon, South America, Capt. George Brown.

Systematic Index of Shells Described in Mr. Lea's Memoir 110–111

Synopsis of the Family of Naïades 113–152

Though forming a part of Article I, this is really No. 23, revised. It was also published separately (see No. 28).

Introductory Remarks 113–117

"In the following table there will be found in the family 323 recent species as admitted, 29 unknown to me or doubtful, and 22 fossil; in all 374.

"Of the subgenus *Unio*, there are 235 species in a recent state, and 20 which I have not been able to admit as certain; of fossil species 21.

"Of the subgenus *Margaritana*, there are 20 admitted species, and 2 which are unknown to me.

"Of the subgenus *Dipsas* I know of but 2 species, both of which are recent.

"Of the subgenus *Anodonta* there are 58 admitted species, and 7 which are unknown to me. Of fossil species there is one which is doubtful.

"The subgenus *Iridina* has 2 species, both recent.

"The subgenus *Spatha* has 6 species, all recent."

1834–38. LEA, ISAAC—Continued.

Division of the Family Naïades 118–120
Genus Margarita 121
Subgenus Unio 121
Subgenus Margaritana 134
Subgenus Dipsas 136
Subgenus Anodonta 137
Genus Platiris 141
Subgenus Iridina 141
Subgenus Spatha 141
Addenda 143
Unio Katherinæ, Lea, n. s. 143
Lake Superior.
List of Rafinesque's species not identified by Mr. Lea 144
Geographical Distribution of the Species of the Family Naïades 145
Genus Margarita 145
Sub. genus Unio 145
Subgenus Margaritana 148
Subgenus Dipsas 149
Subgenus Anodonta 149
Genus Platiris 150
Subgenus Iridina 150
Subgenus Spatha 151
List of species not satisfactorily made out 151
List of fossil species observed in Great Britain 151
Fossil species in the United States 151
List of authors quoted 152
Contents of Mr. Lea's Memoir 153
Errata 153

28.

1838. LEA, ISAAC. A Synopsis | of the | Family of Naïades, | by Isaac Lea, | [Title] Second Edition, Enlarged and Improved. | Philadelphia: | Carey, Lea & Blanchard. | 1838. 4°. pp. 44.

This is pages 113 to 152 of No. 27 repaged and bound separate.

CONTENTS.

Synopsis of the Family Naïades 5–34
Division of the Family Naïades 10–12
Genus Margarita 13–32
Subgenus Unio 13–26
Subgenus Margaritana 26–28
Subgenus Dipsas 28
Subgenus Anodonta 29–32
Genus Platiris 33–34
Subgenus Iridina 33
Subgenus Spatha 33–34
Addenda 35
Geographical Distribution of the Species of the Family Naïades 37–43
Genus Margarita 37–42
Subgenus Unio 37–40
Subgenus Margaritana 40–41
Subgenus Dipsas 41
Subgenus Anodonta 42
Genus Platiris 42–43
Subgenus Iridina 42
Subgenus Spatha 42
List of authors 44

29.

1838. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descriptions of New Genera and Species in the Families | Naïades, Colimacea, Lymnæana, Melaniana | and Peristomiana. | Read before the American Philosophical

1838. LEA, ISAAC—Continued.

Society, and originally published in its Transactions, | with numerous Coloured Plates. | by Isaac Lea, | [Title] | Vol. ii, Philadelphia: | Printed for the author. 8°. 3 l., pp. 1–152, pls. 29, colored.

This is Article I of the Transactions of the American Philosophical Society, vol. vi, and No. 27 of this catalogue, and forms vol. ii of the series of xiii of "Observations on the Genus Unio." Issued in June, 1838.

30.

1838. LEA, ISAAC. [Description of a new shell, *Melania cincinnatiensis.*] <*Proc. Amer. Philos. Soc.*, i, p. 66. No. 5.

Read before the American Philosophical Society December 21, 1838. Probably No. 5 of the Proceedings was issued the same month, certainly by the middle of January, 1839.

Melania cincinnatiensis, Lea, n. s. 66
Near Cincinnati, Ohio, T. G. Lea.
Trans. Amer. Philos. Soc., viii 190

31.

1840. LEA, ISAAC. Description of Nineteen New Species of Colimacea. <*Proc. Amer. Philos. Soc.*, i, pp. 173–175.

Read before the American Philosophical Society February 21, 1840. Proceedings for January and February ready for distribution March 20, 1840. (See *Proc. Amer. Philos. Soc.*, i, p. 188.)

The full paper, with colored plates, will be found in the Transactions American Philosophical Society, vii, pp. 455–466 (see No. 38), the portion published here being the Latin descriptions of the species, with mention of habitat.

Bulimus Woodianus, Lea, n. s. 173
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii. 1841, p. 457.

Bulimus bicoloratus, Lea, n. s. 173
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii, 1841, p. 459.

Bulimus subglobosus, Lea, n. s. 173
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii, 1841, p. 455.

Bulimus gracilis, Lea, n. s. 173
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii, 1841, p. 458.

Bulimus carinatus, Lea, n. s. 174
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii, 1841, p. 458.

Bulimus virido-striatus, Lea, n. s. 174
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii, 1841, p. 455.

Bulimus virgineus, Lea, n. s. 174
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii, 1841, p. 456, as *Bulimus virginieus.*

Bulimus Liberianus, Lea, n. s. 174
Liberia, Africa, Dr. Blanding.
Trans. Amer. Philos. Soc., vii, 1841, p. 457.

Cyclostoma Woodiana, Lea, n. s. 174
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii, 1841, p. 465.

Carocolla bifasciata, Lea, n. s. 174
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii, 1841, p. 465.

Helix cepoides, Lea, n. s. 174
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii, 1841, p. 462.

Helix Blainvilliana, Lea, n. s. 174
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii, 1841, p. 463.

Helix Lamarckiana, Lea, n. s. 174
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii, 1841, p. 461.

1840. LEA, ISAAC—Continued.

Helix luteo-fasciata, Lea, n. s 175
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii, 1841, p. 462.

Helix ferruginea, Lea, n. s 175
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii, 1841, p. 464.

Helix Cuvieriana, Lea, n. s 175
Philippine Islands, W. W. Wood.
Trans. Amer. Philos. Soc., vii, 1841, p. 461.

Helix Blandingiana, Lea, n. s 175
Banks of the river St. Paul, Liberia, Africa, Dr. Blanding.
Trans. Amer. Philos. Soc., vii, 1841, p. 459.

Helix Humphreysiana, Lea, n. s 175
Pondicherry, Mr. Humphreys; Singapore, Mr. Balastier.
Trans. Amer. Philos. Soc., vii, 1841, p. 463.

Helix Balasteriana, Lea, n. s 175
Philippine Islands, Mr. Balastier.
Trans. Amer. Philos. Soc., vii, 1841, p. 460, as *Helix balestieriana.*

32.

1840. LEA, ISAAC. On the Patella amæna of Say. <*Proc. Amer. Philos. Soc.*, i, p. 187.

Reporter's abstract of the above paper read March 6, 1840. Proceedings for March presented to the meeting of the Society May 1, 1840. (See *Proc. Amer. Philos. Soc.*, i, p. 209.)

The full article was published in the *Trans. Amer. Philos. Soc.*, vii, pp. 73–74. (See No. 34.)

Patelloida testudinalis (Müller), Lea 187
Trans. Amer. Philos. Soc., vii, p. 73.

33.

1840. LEA, ISAAC. Notice of the Oolitic Formation in America, with Descriptions of some of its Organic Remains. <*Proc. Amer. Philos. Soc.*, i, pp. 225–227. No. 12.

Read May 15, 1840. Ordered to be published June 19, 1840. Proceedings for May, June, and July presented to the meetings of the Society August 21, 1840. (See *Proc. Amer. Philos. Soc.*, i, p. 267.)

The full paper, with plates, will be found in the *Trans. Amer. Philos. Soc.*, vii, part II, pp. 251–260 (See No. 36), the portion printed in the Proceedings being the reporter's outline of the whole paper, followed by the Latin descriptions of the species.

Orthocera Humboldtiana, Lea, n. s 226
Trans. Amer. Philos. Soc., vii, p. 253.

Ammonites Tocaimaensis, Lea, n. s 226
Trans. Amer. Philos. Soc., vii, p. 253.

Ammonites occidentalis, Lea, n. s 226
Trans. Amer. Philos. Soc., vii, p. 254.

Ammonites Gibboniana, Lea, n. s 26
Trans. Amer. Philos. Soc., vii, p. 254.

Ammonites Vanuxemensis, Lea, n. s 226
Trans. Amer. Philos. Soc., vii, p. 254.

Ammonites americana, Lea, n. s 226
Trans. Amer. Philos. Soc., vii, p. 255.

Trigonia Gibboniana, Lea, n. s 226
Trans. Amer. Philos. Soc., vii, p. 255.

Trigonia Tocaimana, Lea, n. s 226
Trans. Amer. Philos. Soc., vii, p. 256, as *T. Tocaimaana.*

Trigonia Hondaana, Lea, n. s 226
Trans. Amer. Philos. Soc., vii, p. 256.

Natica Gibboniana, Lea, n. s 226
Trans. Amer. Philos. Soc., vii, p. 256.

Spatangus Colombianus, Lea, n. s 227
Trans. Amer. Philos. Soc., vii, p. 257.

Terebratula Tayloriana, Lea, n. s 227
Trans. Amer. Philos. Soc., vii, p. 259.

Terebratula Poeyana, Lea, n. s 227
Trans. Amer. Philos. Soc., vii, p. 260.

Tellina (?) *Humboldtiana*, Lea, n. s 227
Trans. Amer. Philos. Soc., vii, p. 260, as *Tellinites Humboldtiana.*

34.

1840. LEA, ISAAC. On the Patella Amæna of Say. <*Trans. Amer. Philos. Soc.*, vii, part I, pp. 73–74. (See also No. 32.)

Read before the American Philosophical Society March 6, 1840. (See *Proc. Amer. Philos. Soc.*, i, 1840, p. 181.) Transactions of the Society, vol. vii, part I, presented to the meeting of the Society September 18, 1840. (See *Proc. Amer. Philos. Soc.*, i, 1840, p. 273.)

"In this Paper Mr. Lea gives a Synonymy, showing that the *Patella Amæna* of Say was first described by Müller, under the specific name of *Testudinalis:* Zool. Dan., p. 237; and Mr. Couthouy, having lately given an elaborate description of the animal in the Boston Journal of Natural Science showing that it belongs to the new genus *Patelloida*, recently established by Quoy and Gaimard; Mr. Lea argues that it should henceforth be called *Patelloida Testudinalis*."—*Proc. Amer. Philos. Soc.*, i, p. 187.

35.

1840. LEA, ISAAC. Descriptions of new Fresh Water and Land Shells. <*Proc. Amer. Philos. Soc., Phila.*, i, pp. 284–289.

Read before the Society October 2, 1840. Ordered to be published October 16, 1840. Proceedings for October ready for distribution, and a copy presented to the meeting of the Society November 6, 1840. (See *Proc. Amer. Philos. Soc.*, i, 1840, p. 292.)

The *full paper*, with *plates*, will be found in the Transactions of the Society, vol. viii, pp. 191–229, as part of Article XII, but the Latin descriptions of the species (preceded by the reporter's notes on the whole paper) were published in the Proceedings, as above. (See No. 43.)

Unio cucumoides, Lea, n. s. 285
Hunter's River, New South Wales, Dr. Jay.
Trans. Amer. Philos. Soc., viii, 1842, p. 192.

Unio delphinus, Lea, n. s. 285
New Holland, G. von den Busch, M. D.
Trans. Amer. Philos. Soc., viii, 1842, p. 218.

Unio orientalis, Lea, n. s. 285
Java, G. von den Busch, M. D.
Trans. Amer. Philos. Soc., viii, 1842, p. 221.

Unio Javanus, Lea, n. s. 285
Java, G. von den Busch, M. D.
Trans. Amer. Philos. Soc., viii, 1842, p. 220.

Unio Cincinnatiensis, Lea, n. s. 285
Ohio River, Cincinnati, T. G. Lea.
Trans. Amer. Philos. Soc., viii, 1842, p. 194.

Unio pilaris, Lea, n. s. 285
French Broad and Holston Rivers, East Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 209.

Unio Geddingsianus, Lea, n. s. 285
Congaree River, So. Car., Prof. Ravenel.
Trans. Amer. Philos. Soc., viii, 1842, p. 202.

Unio tuberosus, Lea, n. s. 286
Cany Fork and Cumberland Rivers, Middle Tenn., Mr. S. M, Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 210.

Unio cuneolus, Lea, n. s. 286
Holston River, Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 193.

Unio Lesueurianus, Lea, n. s. 286
Cany Fork and Holston Rivers, Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 195.

Unio Stonensis, Lea, n. s. 286
Stone's River, Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 195.

Unio lenis, Lea, n. s. 286
Stone's River, Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 204, as *Unio lenior*.

Unio plenus, Lea, n. s. 286
Ohio River, near Cincinnati, T. G. Lea.
Trans. Amer. Philos. Soc., viii, 1842, p. 211.

Unio tener, Lea, n. s. 286
Big Pigeon River, Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 198.

1840. LEA, ISAAC—Continued.

Unio pusillus, Lea, n. s. 286
Ogeechee River, Georgia, Major Le Conte.
Trans. Amer. Philos. Soc., viii, 1842, p. 220.

Unio amœnus, Lea, n. s. 286
Holston River, Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 200.

Unio incrassatus, Lea, n. s. 286
Chattahoochee River, near Columbus, Georgia, Dr. Boykin.
Trans. Amer. Philos. Soc., viii, 1842, p. 217.

Unio Boydianus, Lea, n. s. 286
Oak Orchard Creek, Orleans County, N. Y., Dr. Boyd.
Trans. Amer. Philos. Soc., viii, 1842, p. 216.

Unio Sloatianus, Lea, n. s. 287
Chattahoochee River, Georgia, Mr. L. W. Sloat.
Trans. Amer. Philos. Soc., viii, 1842, p. 217.

Unio paulus, Lea, n. s. 287
Chattahoochee River, Columbus, Georgia, Dr. Boykin.
Trans. Amer. Philos. Soc., viii, 1842, p. 213.

Unio strigosus, Lea, n. s. 287
Chattahoochee River, Columbus, Georgia, Dr. Boykin.
Trans. Amer. Philos. Soc., viii, 1842, p. 198.

Unio lineatus, Lea, n. s. 287
Chattahoochee River, Columbus, Georgia, Dr. Boykin.
Trans. Amer. Philos. Soc., viii, 1842, p. 206.

Unio exiguus, Lea, n. s. 287
Chattahoochee River, Columbus, Georgia, Dr. Boykin.
Trans. Amer. Philos. Soc., viii, 1842, p. 191.

Unio tortivus, Lea, n. s. 287
Chattahoochee River, Columbus, Georgia, Dr. Boykin.
Trans. Amer. Philos. Soc., viii, 1842, p. 204.

Unio sub-angulatus, Lea, n. s. 287
Chattahoochee River, Columbus, Georgia, Dr. Boykin.
Trans. Amer. Philos. Soc., viii, 1842, p. 209.

Unio striatus, Lea, n. s. 287
Chattahoochee River, Columbus, Georgia, Dr. Boykin.
Trans. Amer. Philos. Soc., viii, 1842, p. 203.

Unio fatuus, Lea, n. s. 287
Holston River, Tenn., Dr. Currey.
Trans. Amer. Philos. Soc., viii, 1842, p. 201.

Unio dactylus, Lea, n. s. 287
Cany Fork River, Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 196.

Unio obtusus, Lea, n. s. 287
Chattahoochee River, Columbus, Georgia, Dr. Boykin.
Trans. Amer. Philos. Soc., viii, 1842, p. 201.

Unio Boykinianus, Lea, n. s. 288
Chattahoochee River, Columbus, Georgia, Dr. Boykin.
Trans. Amer. Philos. Soc., viii, 1842, p. 208.

Unio Edgarianus, Lea, n. s. 288
Holston River, Tenn., Prof. Troost and Dr. Currey; Tennessee River at Florence, Alabama, Mr. T. R. Dutton.
Trans. Amer. Philos. Soc., viii, 1842, p. 214.

Unio biangularis, Lea, n. s. 288
Cany Fork River, Tenn., Prof. Troost and Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 197, as *Unio biangulatus*.

Unio nitens, Lea, n. s. 288
Long Creek, Cocke Co., Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 205.

Unio Holstonensis, Lea, n. s. 288
Holston River, Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 212.

Unio dolabelloides, Lea, n. s. 288
Holston River, Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 215.

1840. LEA, ISAAC—Continued.

Unio Tennesseensis, Lea, n. s 288
Stone's River, Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 199.

Unio atro-marginatus, Lea, n. s 288
Chattahoochee River, Columbus, Georgia, Dr. Boykin.
Trans. Amer. Philos. Soc., viii, 1842, p. 207.

Unio Bournianus, Lea, n. s 288
Scioto River, near Chillicothe, Ohio, Mr. A. Bourne.
Trans. Amer. Philos. Soc., viii, 1842, p. 213.

Margaritana Vondenbuschiana, Lea, n. s 288
Java, G. von den Busch, M. D.
Trans. Amer. Philos. Soc., viii, 1842, p. 222.

Margaritana Curreyiana, Lea, n. s 288
Stone's River, Tenn., Dr. Currey, of Nashville.
Trans. Amer. Philos. Soc., viii, 1842, p. 223.

Anodonta Harpethensis, Lea, n. s 289
Harpeth River, Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 224.

Anodonta argentea, Lea, n. s 289
Stone's River, Tenn., Dr. Currey.
Trans. Amer. Philos. Soc., viii, 1842, p. 223.

Anodonta ferruginea, Lea, n. s 289
Simon's Creek, Indiana, T. G. Lea.
Trans. Amer. Philos. Soc., viii, 1842, p. 225.

Anodonta Couperiana, Lea, n. s 289
Hopeton, near Darien, Georgia, J. H. Couper, Esq.
Trans. Amer. Philos. Soc., viii, 1842, p. 227, as *Anodonta Couperiana*.

Anodonta Maryattiana, Lea, n. s 289
Vicinity of Fort Winnebago, Capt. Maryatt, R. N.
Trans. Amer. Philos. Soc., viii, 1842, p. 226.

Anodonta Footiana, Lea, n. s 289
Vicinity of Fort Winnebago, Dr. Foot.
Trans. Amer. Philos. Soc., viii, 1842, p. 225.

Melania catenaria, Lea, n. s 289
Chattahoochee River, Columbus, Georgia, Dr. Boykin.
Trans. Amer. Philos. Soc., viii, 1842, p. 228, as *Melania catenoides*.

Melania Boykiniana, Lea, n. s 289
Chattahoochee River, Columbus, Georgia, Dr. Boykin.
Trans. Amer. Philos. Soc., viii, 1842, p. 228.

Carocolla Cumberlandiana, Lea, n. s 289
Cumberland Mts., near Jasper, Tenn., Dr. Currey.
Trans. Amer. Philos. Soc., viii, 1842, p. 229.

Cyclostoma Cincinnatiensis, Lea, n. s 289
Vicinity of Cincinnati, T. G. Lea.
Trans. Amer. Philos. Soc., viii, 1842, p. 229.

36.

1840. LEA, ISAAC. Notice of the Oolitic Formation in America, with Descriptions of some of its Organic Remains. <*Trans. Amer. Philos. Soc.*, vii, Part II, pp. 251–260, plates viii–x.

Read before the American Philosophical Society, May 15, 1840. Transactions of the Society, vol. vii, Part ii, ready for distribution February 5, 1841. (See *Proc. Amer. Philos. Soc.*, ii, p. 16.)

A portion of the paper, the Latin descriptions of the species, was published in the *Proc. Amer. Philos. Soc.*, i, 1840, pp. 225–227. (See No. 33.)

The paper describes some fossils from New Granada and Cuba, resembling forms found in the Jura formation of Europe, and is divided into two parts, the first relating to the Oolite of New Granada and the second to the Oolite of Cuba. Each of these parts commences with remarks upon the formations and localities from which the specimens were derived.

THE OOLITE OF NEW GRANADA 251–257

Orthocera Humboldtiana, Lea, pl. viii, fig. 1 253
Proc. Amer. Philos. Soc., i, p. 226.

Ammonites Tocaimaensis, Lea, pl. viii, fig. 2 253
Proc. Amer. Philos. Soc., i, p. 226.

1840. LEA, ISAAC—Continued.

Ammonites Gibbonianus, Lea, pl. viii, fig. 3 254
Proc. Amer. Philos. Soc., i, p. 226.
Ammonites occidentalis, Lea, pl. viii, fig. 4 254
Proc. Amer. Philos. Soc., i, p. 226.
Ammonites Vanuxemensis, Lea, pl. viii, fig. 5 254
Proc. Amer. Philos. Soc., i, p. 226.
Ammonites Americanus, Lea, pl. viii, fig. 6 255
Proc. Amer. Philos. Soc., i, p. 226.
Trigonia Gibboniana, Lea, pl. ix, fig. 7 255
Proc. Amer. Philos. Soc., i, p. 226.
Trigonia Tocaimaana, Lea, pl. ix, fig. 8 256
Proc. Amer. Philos. Soc., i, p. 226, as *T. Tocaimana*.
Trigonia Hondaana, Lea, pl. ix, fig. 9 256
Proc. Amer. Philos. Soc., i, p. 226.
Natica Gibboniana, Lea, pl. ix, fig. 10 256
Proc. Amer. Philos. Soc., i, p. 226.
Spatangus Colombianus, Lea, pl. ix, fig. 11 257
Proc. Amer. Philos. Soc., i, p. 227.
THE OOLITE OF CUBA 257–260
Terebratula Tayloriana, Lea, pl. x, fig. 12 259
Proc. Amer. Philos. Soc., i, p. 227.
Terebratula Poeyana, Lea, pl. x, fig. 13 260
Proc. Amer. Philos. Soc., i, p. 227.
Tellinites Humboldtiana, Lea, pl. x, fig. 14 260
Proc. Amer. Philos. Soc., i, p. 227, as *Tellina* [?] *Humboldtiana*.

Besides the foregoing species described and figured, Mr. Lea proposed the following names (without descriptions) for casts in his possession and figured in plate x.

Nautilus Cubæensis, Lea, n. s., pl. x, fig. 15 259
Arca Sillimaniana, Lea, n. s., pl. x, fig. 16 259
Cucullea dubia, Lea, n. s., pl. x, fig. 17 259
Chama tortuosa, Lea, n. s., pl. x, fig. 18 259
Cardium globosum, Lea, n. s., pl. x, fig. 20 259
Cardium depressum, Lea, n. s., pl. x, fig. 21 259
Conus latus, Lea, n. s., pl. x, fig. 19 259

37.

1841. LEA, ISAAC. New Fresh Water and Land Shells. <*Proc. Amer. Philos. Soc.*, ii, pp. 11–15.

Read before the American Philosophical Society, January 15, 1841. No printed record of the publication of the Proceedings for February found, but in all probability they were issued March, 1841.

The full paper with plates will be found in the *Trans. Amer. Philos. Soc.*, viii, pp. 163–190. (See No. 43.) The portion published in the Proceedings consists of the Latin descriptions of the species with mention of habitat.

"In this paper Mr. Lea describes fifty-seven new species of the genus Melania. He notices the existence of numerous species distributed over a wide geographical range, from the Columbia River to the St. Lawrence; there being now about 117 species included in the Fauna of the United States.

This genus having become so extended, Mr. Lea felt the necessity of making minor groups, and has therefore proposed nine sections. 1. The Smooth. 2. The Plicate. 3. The Carinate. 4. The Sulcate. 5. The Striate. 6. The Tuberculate. 7. The Granulate. 8. The Cancellate. 9. The Spinose."

Section 1.—Smooth Melaniæ.

Melania Hildrethiana, Lea, n. s. 11
Ohio River, near Marietta, Dr. Hildreth.
Trans. Amer. Philos. Soc., viii, p. 164.
Melania castanea, Lea, n. s 11
Maury County, Tenn., Mr. Dutton.
Trans. Amer. Philos. Soc., viii, p. 164.
Melania lævigata, Lea, n. s 11
Alabama River, at Claiborne, Judge Tait.
Trans. Amer. Philos. Soc., viii, p. 165.

Specific name was afterward changed by Mr. Lea to *lævis* because *lævigata* was preoccupied by Lamarck. (See *Proc. Amer. Philos. Soc.*, ii, p. 237, and *Transactions* of the same Society, vol. viii, Corrigenda between pages 250 and 251.)

1841. LEA, ISAAC—Continued.

Melania Kirtlandiana, Lea, n. s 11
Richmond, Indiana; Duck Creek, near Cincinnati; and Miami, Ohio, T. G. Lea; Little Miami, Dr. Warder.
Trans. Amer. Philos. Soc., viii, p. 165.

Melania Taitiana, Lea, n. s 11
Alabama River, at Claiborne, Judge Tait.
Trans. Amer. Philos. Soc., viii, p. 165.

Melania dubia, Lea, n. s 11
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, p. 166, as *Melania dubiosa*.

Melania ebenum, Lea, n. s 12
Robinson County, Tenn., Dr. Currey.
Trans. Amer. Philos. Soc., viii, 1842, p. 166.

Melania rufa, Lea, n. s 12
Mamma's Creek, Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, p. 167.

Specific name changed to *rufescens*, because *rufa* was preoccupied by Dr. Philippi, for a Sicilian species. See *Proc. Amer. Philos. Soc.*, ii, 1842, p. 237, and *Transactions* of the same society, vol. viii, Corrigenda between pages 250 and 251.

Melania fusiformis, Lea, n. s 12
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 167.

Melania clavæformis, Lea, n. s 12
Ocoée District, Tenn., Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 168.

Melania gracilis, Lea, n. s 12
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 168.

Melania subsolida, Lea, n. s 12
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 168.

Melania Ocoéensis, Lea, n. s 12
Ocoée District, Tenn., Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 169.

Melania subcylindracea, Lea, n. s 12
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 169.

Melania sordida, Lea, n. s 12
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 170.

Melania regularis, Lea, n. s 12
Oconee District, Tenn.
Trans. Amer. Philos. Soc., viii, 1842, p. 170.

Melania fuliginosa, Lea, n. s 12
Big Bigby Creek, Maury Co., Tenn., Mr. Dutton.
Trans. Amer. Philos. Soc., viii, 1842, p. 170.

Melania Nickliniana, Lea, n. s 12
Bath County, Va., P. H. Nicklin.
Trans. Amer. Philos. Soc., viii, 1842, p. 171.

Melania viridis, Lea, n. s 12
Vicinity of Cincinnati, T. G. Lea.
Trans. Amer. Philos. Soc., viii, 1842, p. 172.

Melania occidentalis, Lea, n. s 12
Vicinity of Cincinnati, Ohio, T. G. Lea.
Trans. Amer. Philos. Soc., viii, 1842, p. 172.

Melania Niagarensis, Lea, n. s 12
Falls of Niagara.
Trans. Amer. Philos. Soc., viii, 1842, p. 173.

Melania globula, Lea, n. s 12
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 174.

Melania altilis, Lea, n. s 12
Susquehanna River, Md.
Trans. Amer. Philos. Soc., viii, 1842, p. 174.

1841. LEA, ISAAC—Continued.

Melania strigosa, Lea, n. s 13
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 175.

Melania virgata, Lea, n. s 13
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 175.

Melania tenebrosa, Lea, n. s 13
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 176.

Section 2.—Plicate Melaniæ.

Melania teres, Lea, n. s 13
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 176.

Melania obtusa, Lea, n. s 13
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 176.

Melania Lecontiana, Lea, n. s 13
Georgia, Major Le Conte.
Trans. Amer. Philos. Soc., viii, 1842, p. 177.

Melania corrugata, Lea, n. s 13
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 177.

Specific name changed to *rugosa*, because *corrugata* was preoccupied by Lamarck. See *Proc. Amer. Philos. Soc.*, ii, 1842, p. 237, and *Transactions* of the same Society, viii, Corrigenda, between pages 250 and 251.

Melania monozonalis, Lea, n. s 13
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 178.

Melania terebralis, Lea, n. s 13
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 178.

Melania columella, Lea, n. s 13
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 179.

Melania blanda, Lea, n. s 13
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 179.

Melania cerebri-costata, Lea, n. s 13
Robinson County, Tenn., Dr. Currey.
Trans. Amer. Philos. Soc., viii, 1842, p. 179.

Melania Curreyana, Lea, n. s 13
Barren River, Ky., Dr. Currey.
Trans. Amer. Philos. Soc., viii, 1842, p. 180.

Melania Edgariana, Lea, n. s 14
Cany Fork, Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 180.

Melania decora, Lea, n. s 14
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 181.

Melania costulata, Lea, n. s 14
Barren River, Kentucky, Dr. Currey.
Trans. Amer. Philos. Soc., viii, 1842, p. 181.

Melania nitida, Lea, n. s 14
Tennessee, Dr. Troost.
[Called *M. nitens*, in *Trans. Amer. Philos. Soc.*, viii, 1842, p. 182.]

Melania plicatula, Lea, n. s 14
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 182.

Melania concinna, Lea, n. s 14
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 183.

Section 3.—Carinate Melaniæ.

Melania Babylonica, Lea, n. s 14
Yellow Springs, Green Co., Ohio, T. G. Lea.
Trans. Amer. Philos. Soc., viii, 1842, p. 183.

1841. LEA, ISAAC—Continued.

Melania exarata, Lea, n. s. 14
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 183.

Melania Potosiensis, Lea, n. s. 14
Potosi, Missouri, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 184.

Melania acuto-carinata, Lea, n. s. 14
Tennessee, Dr. Currey.
Trans. Amer. Philos. Soc., viii, 1842, p. 184.

Melania Warderiana, Lea, n. s. 14
Cedar Creek, a branch of Clinch River, Russell Co., Va., J. A. Warder, M. D.
Trans. Amer. Philos. Soc., viii, 1842, p. 185.

Section 4.—Sulcate Melanias.

Melania sulcosa, Lea, n. s. 14
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 185.

Section 5.—Striate Melanias.

Melania striata, Lea, n. s. 15
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 186.

Specific name changed to *striatula* because *striata* was preoccupied by Mr. Sowerby, for a fossil species. See *Proc. Amer. Philos. Soc.*, ii, 1842, p. 237, and *Transactions* of the same Society, viii, Corrigenda, between pages 250 and 251.

Melania pilula, Lea, n. s. 15
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 186.

Melania cincta, Lea, n. s. 15
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 187.

Section 6.—Tuberculate Melanias.

Melania venusta, Lea, n. s. 15
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 187.

Melania Florentiana, Lea, n. s. 15
Tennessee River, Florence, Alabama, Mr. Dutton.
Trans. Amer. Philos. Soc., viii, 1842, p. 188.

Melania Duttoniana, Lea, n. s. 15
Waters of Tennessee, Dr. Troost; Duck River, Maury Co., Tenn., Mr. Dutton.
Trans. Amer. Philos. Soc., viii, 1842, p. 188.

Section 7.—Granulate Melanias.

Melania Holstonia, Lea, n. s. 15
Tennessee, Dr. Troost; Holston River, Tenn., Mr. S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 189.

Section 8.—Cancellate Melanias.

Melania calyciana, Lea, n. s. 15
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 189.

Melania nodulosa, Lea, n. s. 15
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., viii, 1842, p. 190.

38.

1841. LEA, ISAAC. Description of Nineteen new Species of Colimacea. <*Trans. Amer. Philos. Soc.*, N. S., vii, Part III., pp. 455–466, plates 11 & 12 (colored). Separate, 4°, pp. 1–11, same plates.

Read before the American Philosophical Society, February 21, 1841. Transactions vol. vii, Part III, presented to the meeting of the Society April 2, 1841. (See *Proc. Amer. Philos. Soc.*, ii, 1841, p. 43.

The Latin descriptions of the species were published in the *Proc. Amer. Philos. Soc.*, i, pp. 173–175. (See No. 32.

Bulimus subylindricus, Lea, pl. xi, fig. 1 455
Proc. Amer. Philos. Soc., i, p. 173.

1841. LEA, ISAAC—Continued.

Bulimus virido-striatus, Lea, pl. xi, fig. 2 455
Proc. Amer. Philos. Soc., i, p. 174.
Bulimus virginicus, Lea, pl. xi, fig. 3 456
Proc. Amer. Philos. Soc., i, p. 174, as *Bulimus Virgineus*.
Bulimus Liberianus, Lea, pl. xi, fig. 4 457
Proc. Amer. Philos. Soc., i, p. 174.
Bulimus Woodianus, Lea, pl. xi, fig. 5 457
Proc. Amer. Philos. Soc., i, p. 173.
Bulimus gracilis, Lea, pl. xi, fig. 6 458
Proc. Amer. Philos. Soc., i, p. 173.
Bulimus carinatus, Lea, pl. xi, fig. 7 458
Proc. Amer. Philos. Soc., i, p. 174.
Bulimus bicoloratus, Lea, pl. xi, fig. 8 459
Proc. Amer. Philos. Soc., i, p. 173.
Helix Blandingiana, Lea, pl. xii, fig. 9 459
Proc. Amer. Philos. Soc., i, p. 175.
Helix Balestieriana, Lea, pl. xii, fig. 10 460
Proc. Amer. Philos. Soc., i, p. 175, as *Helix balasteriana*.
Helix Lamarckiana, Lea, pl. xii, fig. 11 461
Proc. Amer. Philos. Soc., i, p. 174.
Helix Cuvieriana, Lea, pl. xii, fig. 12 461
Proc. Amer. Philos. Soc., i, p. 175.
Helix luteo-fasciata, Lea, pl. xii, fig. 13 462
Proc. Amer. Philos. Soc., i, p. 175.
Helix cepoides, Lea, pl. xii, fig. 14 462
Proc. Amer. Philos. Soc., i, p. 174.
Helix Blainvilliana, Lea, pl. xii, fig. 15 463
Proc. Amer. Philos. Soc., i, p. 174.
Helix Humphreysiana, Lea, pl. xii, fig. 16 463
Proc. Amer. Philos. Soc., i, p. 175.
Helix ferruginea, Lea, pl. xii, fig. 17 464
Proc. Amer. Philos. Soc., i, p. 175.
Carocolla bifasciata. Lea, pl. xii, fig. 18 465
Proc. Amer. Philos. Soc., i, p. 174.
Cyclostoma Woodiana, Lea, pl. xii, fig. 19 465
Proc. Amer. Philos. Soc., i, p. 174.

39.

1841. LEA, ISAAC. Continuation of paper On Fresh Water and Land Shells. <*Proc. Amer. Philos. Soc.*, ii, 1841, pp. 30–34.

Read before the American Philosophical Society February 19, 1841, and ordered to be published March 5, 1841. Proceedings for March and April were presented to the Society May 7, 1841. (See *Proc. Amer. Philos. Soc.*, ii, 1841, p. 58.)

The part of the paper published in the Proceedings consists of the Latin descriptions of the species. The full paper was published in the Transactions of the Society in two parts, one containing the descriptions of the first ten species in vol. viii, pp. 230–241, as part of Article XII, and the other completing the paper in vol. ix, pp. 1–17, as part of Article I. (See Nos. 43 and 51.)

Unio Sapotalensis, Lea, n. s 30
Sapotal River, near Tlocatalpam, Mex., Dr. Burrough.
Trans. Amer. Philos. Soc., viii, 1842, p. 233.
Unio Tecomatensis, Lea, n. s 30
Tecomate River, near Tlocatalpam, Mex., Dr. Burrough.
Trans. Amer. Philos. Soc., viii, 1842, p. 234.
Unio Rajahensis, Lea, n. s 30
The Rajah's tanks, Calcutta, Dr. Jay.
Trans. Amer. Philos. Soc., viii, 1842, p. 239.
Unio Bigbyensis, Lea, n. s 30
Big Bigby Creek, Maury Co., Tenn., T. R. Dutton.
Trans. Amer. Philos. Soc., viii, 1842, p. 237.
Unio crocatus, Lea, n. s 31
Savannah River, Georgia, T. R. Dutton.
Trans. Amer. Philos. Soc., viii, 1842, p. 238.
Unio collorus, Lea, n. s 31
Ohio Canal, 12 miles below Columbus, Dr. Jay.
Trans. Amer. Philos. Soc., viii, 1842, p. 239.

1841. LEA, ISAAC—Continued.

Unio Duttonianus, Lea, n. s 31
Ogechee Canal, Savannah, Georgia, T. R. Dutton.
Trans. Amer. Philos. Soc., viii, 1842, p. 236.

Unio Georgianus, Lea, n. s 31
Stump Creek, Georgia, T. R. Dutton.
Trans. Amer. Philos. Soc., viii, 1842, p. 235.

Anodonta Montezuma, Lea, n. s 31
Central America, Dr. Jay.
Trans. Amer. Philos. Soc., viii, 1842, p. 240.

Anodonta globosa, Lea, n. s 31
Concha Lake, near Tlocatalpam, Mex., Dr. Burrough.
Trans. Amer. Philos. Soc., viii, 1842, p. 241.

Helix Tennesseensis, Lea, n. s 31
Cumberland Mts., Tenn., S. M. Edgar.
Trans. Amer. Philos. Soc., ix, 1844, p. 1.

Cerocolla Edgariana, Lea, n. s 31
Cumberland Mts., Tenn., S. M. Edgar.
Trans. Amer. Philos. Soc., ix, 1844, p. 2.

Bulimus Jayanus, Lea, n. s 31
Java. ?
Trans. Amer. Philos. Soc., ix, 1844, p. 2.

Achatina turbinata, Lea, n. s 31
Liberia, Dr. Blanding.
Trans. Amer. Philos. Soc., ix, 1844, p. 2.

Achatina striata, Lea, n. s 31
Liberia, Dr. Blanding.
Trans. Amer. Philos. Soc., ix, 1844, p. 3.

Succinea gracilis, Lea, n. s 31
Java. ?
Trans. Amer. Philos. Soc., ix, 1844, p. 3.

Succinea Wardiana, Lea, n. s 31
Ohio, Dr. Ward.
Trans. Amer. Philos. Soc., ix, 1844, p. 3.

Succinea Totteniana, Lea, n. s 32
Newport, R. I., Col. Totten, U. S. Army.
Trans. Amer. Philos. Soc., ix, 1844, p. 4.

Succinea Nuttalliana, Lea, n. s 32
Oregon., Prof. Nuttall.
Trans. Amer. Philos. Soc., ix, 1844, p. 4.

Succinea aurea, Lea, n. s 32
Springfield, Ohio, T. G. Lea.
Trans. Amer. Philos. Soc., ix, 1844, p. 4.

Succinea Candéana, Lea, n. s 32
Martinique, Lieut. Candé.
Trans. Amer. Philos. Soc., ix, 1844, p. 5.

Succinea fulgens, Lea, n. s 32
Cuba, M. Poey.
Trans. Amer. Philos. Soc., ix, 1844, p. 5.

Succinea Oregonensis, Lea, n. s 32
Oregon, Prof. Nuttall.
Trans. Amer. Philos. Soc., ix, 1844, p. 5.

Succinea inflata, Lea, n. s 32
South Carolina, Prof. Ravenel.
Trans. Amer. Philos. Soc., ix, 1844, p. 5.

Planorbis regularis, Lea, n. s 32
U. States.
Trans. Amer. Philos. Soc., ix, 1844, p. 6.

Planorbis Buchanensis, Lea, n. s 32
Near Cincinnati, Ohio, R. Buchanan.
Trans. Amer. Philos. Soc., ix, 1844, p. 6.

Planorbis bellus, Lea, n. s 32
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., ix, 1844, p. 6.

Physa Hildrethiana, Lea, n. s 32
A Lake in Illinois, Dr. Hildreth.
Trans. Amer. Philos. Soc., ix, 1844, p. 7.

1841. LEA, ISAAC—Continued.

Physa inflata, Lea, n. s. 32
Virginia, between the Salt Sulphur and the Sweet Spring, P. H. Nicklin.
Trans. Amer. Philos. Soc., ix, 1844, p. 7.

Physa Troostensis, Lea, n. s. 32
Near Nashville, Tenn., Dr. Troost.
Trans. Amer. Philos. Soc., ix, 1844, p. 7, as *Physa Troostiana*.

Lymnea Philadelphica, Lea, n. s. 32
Schuylkill, near Philadelphia.
Trans. Amer. Philos. Soc., ix, 1844, p. 8.

Lymnea Griffithiana, Lea, n. s. 33
Charlotte Lake, Columbia Co., New York, Dr. Griffith.
Trans. Amer. Philos. Soc., ix, 1844, p. 8.

Lymnea Nuttalliana, Lea, n. s. 33
Oregon, Prof. Nuttall.
Trans. Amer. Philos. Soc., ix, 1844, p. 9.

Lymnea bulimoides, Lea, n. s. 33
Oregon, Prof. Nuttall.
Trans. Amer. Philos. Soc., ix, 1844, p. 9.

Lymnea exigua, Lea, n. s. 33
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., ix, 1844, p. 9.

Lymnea planulata, Lea, n. s. 33
White Sulphur Springs, Virginia, P. H. Nicklin.
Trans. Amer. Philos. Soc., ix, 1844, p. 9.

Lymnea fusiformis, Lea, n. s. 33
Niagara River, Lewistown, N. Y., Tobias Wagner.
Trans. Amer. Philos. Soc., ix, 1844, p. 10.

Lymnea rustica, Lea, n. s. 33
Poland, Ohio, Dr. Kirtland.
Trans. Amer. Philos. Soc., ix, 1844, p. 10.

Lymnea plica, Lea, n. s. 33
Tennessee, Dr. Troost.
Trans. Amer. Philos. Soc., ix, 1844, p. 10.

Lymnea coarctata, Lea, n. s. 33
Newport, R. I., Col. Totten, U. S. Army.
Trans. Amer. Philos. Soc., ix, 1844, p. 11.

Lymnea casta, Lea, n. s. 33
Poland, Ohio, Dr. Kirtland.
Trans. Amer. Philos. Soc., ix, 1844, p. 11.

Lymnea parva, Lea, n. s. 33
Cincinnati, Ohio, T G Lea.
Trans. Amer. Philos. Soc., ix, 1844, p. 11.

Lymnea curta, Lea, n. s. 33
Cincinnati, Ohio, T. G. Lea.
Trans. Amer. Philos. Soc., ix, 1844, p. 11.

Lymnea strigosa, Lea, n. s. 33
Near Cincinnati, Ohio, T. G. Lea.
Trans. Amer. Philos. Soc., ix, 1844, p. 12.

Lymnea Kirtlandiana, Lea, n. s. 33
Poland, Ohio, Dr. Kirtland.
Trans. Amer. Philos. Soc., ix, 1844, p. 12.

Lymnea rubella, Lea, n. s. 33
Oahu, Prof. Nuttall.
Trans. Amer. Philos. Soc., ix, 1844, p. 12.

Paludina regularis, Lea, n. s. 34
Ohio ?, T. G. Lea.
Trans. Amer. Philos. Soc., ix, 1844, p. 13.

Paludina obtusa, Lea, n. s. 34
Ohio, Dr. Kirtland.
Trans. Amer. Philos. Soc., ix, 1844, p. 13.

Paludina Troostiana, Lea, n. s. 34
Tenn., Dr. Troost.
Trans. Amer. Philos. Soc., ix, 1844, p. 14.

1841. LEA, ISAAC—Continued.

Anculosa Troostiana, Lea, n. s 34
Tenn., Prof. Troost.
Trans. Amer. Philos. Soc., ix, 1844, p. 15.

Anculosa gibbosa, Lea, n. s 34
Tennessee, Prof. Troost.
Trans. Amer. Philos. Soc., ix, 1844, p. 15.

Anculosa dentata, Lea, n. s 34
Vicinity of Richmond, Va., J. A. Warder, M. D.

Anculosa carinata, Lea, n. s 34
Roanoke River, Lafayette, J. A. Warder, M. D.
Trans. Amer. Philos. Soc., ix, 1844, p. 15.

Anculosa variabilis, Lea, n. s 34
Roanoke River, Lafayette, J. A. Warder, M. D.
Trans. Amer. Philos. Soc., ix, 1844, p. 15.

Amnicola orbiculata, Lea, n. s 34
Springfield, Ohio, and Schuylkill, ? near Philadelphia, T. G. Lea.
Trans. Amer. Philos. Soc., ix, 1844, p. 16.

Amnicola parva, Lea, n. s 34
Springfield, Ohio, T. G. Lea.
Trans. Amer. Philos. Soc., ix, 1844, p. 16.

Io tenebrosa, Lea, n. s 34
Tennessee, S. M. Edgar.
Trans. Amer. Philos. Soc., ix, 1844, p. 17.

40.

1841. LEA, ISAAC. Continuation of Mr. Lea's Paper on Fresh Water and Land Shells. <*Proc. Amer. Philos. Soc.*, ii, July, 1841, pp. 81–83.

Read before the American Philosophical Society, June 18, 1841, and ordered to be published in the Transactions, July 16, 1841.

The whole article was published in two parts in the Transactions, the part relating to the first five species in volume viii, pp. 242-245, and the rest in volume ix, pp. 17-23. (See numbers 43 and 51.)

The portion published in the Proceedings consists of the Latin descriptions.

Proceedings for July, 1841, was received by the Academy Natural Sciences, Phila., on or before November 16, 1841. (See *Proc. Acad. Nat. Sci., Phila.*, i, p. 123.)

Unio Brumbyanus, Lea, n. s 82
Warrior River, Tuscaloosa, Alabama, Prof. Brumby.
Trans. Amer. Philos. Soc., viii, 1842, p. 245.

Unio regularis, Lea, n. s 82
French Broad River, East Tennessee, Dr. Troost and S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 243.

Unio mæstus, Lea, n. s 82
French Broad River, East Tennessee, Dr. Troost and S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 244.

Unio sparsus, Lea, n. s 82
Holston River, East Tennessee, Dr. Troost and S. M. Edgar.
Trans. Amer. Philos. Soc., viii. 1842. p. 242.

Unio argenteus, Lea, n. s 82
Holston River, East Tennessee, Dr. Troost and S. M. Edgar.
Trans. Amer. Philos. Soc., viii, 1842, p. 242.

Helix Mobiliana, Lea, n. s 82
Vicinity of Mobile, Alabama, Charles Lea.
Trans. Amer. Philos. Soc., ix, 1844, p. 17.

Helix minutissima, Lea, n. s 82
Vicinity of Cincinnati, T. G. Lea.
Trans. Amer. Philos. Soc., ix, 1844, p. 17.

Melania turgida, Lea, n. s 82
Holston River, East Tennessee, Dr. Troost and S. M. Edgar.
Trans. Amer. Philos. Soc., ix, 1844, p. 18.

Melania glabra, Lea, n. s 82
Holston River, East Tennessee, Dr. Troost and S. M. Edgar.
Trans. Amer. Philos. Soc., ix, 1844, p. 18.

Melania perfusca, Lea, n. s 82
Calfkiller Creek, Tenn, S. M. Edgar.
Trans. Amer. Philos. Soc., ix, 1844, p. 18.

1841. LEA, ISAAC—Continued.

Melania picta, Lea, n. s. 83
Holston River, East Tennessee, Dr. Troost and S. M. Edgar.
Trans. Amer. Philos. Soc., ix, 1844, p. 19.

Melania impressa, Lea, n. s. 83
Coosa River, Alabama, Prof. Brumby.
Trans. Amer. Philos. Soc., ix, 1844, p. 19.

Melania robusta, Lea, n. s. 83
Coosa River, Alabama, Prof. Brumby.
Trans. Amer. Philos. Soc., ix, 1844, p. 19.

Melania Jayana, Lea, n. s. 83
Cany Fork, De Kalb Co., Tenn., Dr. Troost.
Trans. Amer. Philos. Soc., ix, 1844, p. 20.

Anculosa rubiginosa, Lea, n. s. 83
Warrior River, Alabama, Prof. Brumby.
Trans. Amer. Philos. Soc., ix, 1844, p. 20.

Anculosa bella, Lea, n. s. 83
Warrior River, Alabama, Prof. Brumby.

Anculosa Griffithiana, Lea, n. s. 83
Coosa River, Alabama, Prof. Brumby.
Trans. Amer. Philos. Soc., ix, 1844, p. 20.

Anculosa tuberculata, Lea, n. s. 83
Warrior River, Alabama, Prof. Brumby.
Trans. Amer. Philos. Soc., ix, 1844, p. 21.

Valvata bicarinata, Lea, n. s. 83
Schuylkill River, west side, below Permanent Bridge, H. C. Lea.
Trans. Amer. Philos. Soc., ix, 1844, p. 21.

Paludina angulata, Lea, n. s. 83
Coosa River, Alabama, Prof. Brumby.
Trans. Amer. Philos. Soc., ix, 1844, p. 22.

Paludina Coosaensis, Lea, n. s. 83
Coosa River, Alabama, Prof. Brumby.
Trans. Amer. Philos. Soc., ix, 1844, p. 23.

Paludina cyclostomaformis, Lea, n. s. 83
Coosa River, Alabama, Prof. Brumby.
Trans. Amer. Philos. Soc., ix, 1844, p. 23, as *Paludina cyclostomatiformis*.

41.

1842. LEA, ISAAC. [On the occurrence of *Melania altilis* on the shore of the Schuylkill near Philadelphia.] <*Proc. Amer. Philos. Soc.*, ii, p. 150.

Verbal communication made March 4, 1842.

Melania altilis, Lea 150

42.

1842. LEA, ISAAC. ["On Rocks perforated by Lithodomi, etc., and subsequently raised above the level of the sea."] <*Proc. Amer. Philos. Soc.*, ii, p. 213.

Verbal communication made September 16, 1842.

"The rock from which this specimen was taken is a compact sandstone, composed of minute grains of quartz, cemented by carbonate of lime, and perforated by *Lithodomi* or Boring Mollusca, being identical with the species now inhabiting the neighboring sea coast, and consisting of *Petricola solida*, *P. denticulata*, *Lithophagus dactylus*, &c. The included shells are nearly in a perfect state."

43.

1842. LEA, ISAAC. Description of New Fresh Water and Land Shells. <*Trans. Amer. Philos. Soc.*, viii, Part II, Article xii, pp. 163–250. Separate, see (No. 44).

Part II of Vol. VIII of the Transactions presented to the meeting of the Society December 16, 1842. (See *Proc. Amer. Philos. Soc.*, ii, p. 243.)

This article consists of six parts read at different times before the American Philosophical Society.

Pp. 163–190, read January 15, 1841, No. 37.
Pp. 190–191, read December 21, 1838, No. 30.
Pp. 191–229, read October 2, 1840, No. 35.
Pp. 230–241, read February 19, 1841, No. 39.
Pp. 242–245, read June 18, 1841, No. 40.
Pp. 246–249, read October 21, 1842, No. 45.

1842. LEA, ISAAC—Continued.

The place where the Latin description of each species was first published in the Proceedings of the Society is indicated after mention of the name of the species.

Besides descriptions and remarks upon new species, this article contains valuable information upon the number of species at that time known to inhabit the waters of the United States, upon the synonymy of *Melania* or *Aneulosa inflata*, Lea (p. 172), and especially upon the gestation of the family Naïades (pp. 230–233).

Melania Hildrethiana, Lea, pl. 5, fig. 1 164
Proc. Amer. Philos. Soc., ii, 1841, p. 11.

Melania castanea, Lea, pl. 5, fig. 2 164
Proc. Amer. Philos. Soc., ii, 1841, p. 11.

Melania lævigata, Lea, pl. 5, fig. 3 165
Changed to *M. lævis* in Corrigenda.
Proc. Amer. Philos. Soc., ii, 1841, p. 11.

Melania Kirtlandiana, Lea, pl. 5, fig. 4 165
Proc. Amer. Philos. Soc., ii, 1841, p. 11.

Melania Taitiana, Lea, pl. 5, fig. 5 165
Proc. Amer. Philos. Soc., ii, 1841, p. 11.

Melania dubiosa, Lea, pl. 5, fig. 6 166
Proc. Amer. Philos. Soc., ii, 1841, p. 11, as *M. dubia*.

Melania ebenum, Lea, pl. 5, fig. 7 166
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania rufa, Lea, pl. 5, fig. 8 167
Changed to *M. rufescens* in Corrigenda.
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania fusiformis, Lea, pl. 5, fig. 9 167
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania clavæformis, Lea, pl. 5, fig. 10 168
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania gracilis, Lea, pl. 5, fig. 11 168
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania subsolida, Lea. pl. 5, fig. 12 168
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania Ocoëensis, Lea, pl. 5, fig. 13 169
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania subcylindracea, Lea, pl. 5, fig. 14 169
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania sordida, Lea, pl. 5, fig. 15 170
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania regularis, Lea, pl. 5, fig. 16 170
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania fuliginosa, Lea, pl. 5, fig. 17 170
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania Nickliniana, Lea, pl. 5, fig. 18 171
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania viridis, Lea, pl. 5, fig. 19 172
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania occidentalis, Lea, pl. 5, fig. 20 172
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania Niagarensis, Lea, pl. 5, fig. 21 173
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania globula, Lea, pl. 5, fig. 22 174
Proc. Amer. Philos. Soc., ii, 1841, p. 12.

Melania altilis, Lea, pl. 5, fig. 23 174
Proc. Amer. Philos. Soc., ii, 1841, p. 13.

Melania strigosa, Lea, pl. 5, fig. 24 175
Proc. Amer. Philos. Soc., ii, 1841, p. 13.

Melania virgata, Lea, pl. 5, fig. 25 175
Proc. Amer. Philos. Soc., ii, 1841, p. 13.

Melania tenebrosa, Lea, pl. 5, fig. 26 176
Proc. Amer. Philos. Soc., ii, 1841, p. 13.

Melania teres, Lea, pl. 5, fig. 27 176
Proc. Amer. Philos. Soc., ii, 1841, p. 13.

Melania obtusa, Lea, pl. 5, fig. 28 176
Proc. Amer. Philos. Soc., ii, 1841, p. 13.

Melania Leconteiana, Lea, pl. 5, fig. 29 177
Proc. Amer. Philos. Soc., ii, 1841, p. 13.

42. LEA, ISAAC—Continued.

Melania corrugata, Lea, pl. 5, fig. 30 177
Changed to *M. rugosa* in Corrigenda.
Proc. Amer. Philos. Soc., ii, 1841, p. 13.

Melania monozonalis, Lea, pl. 6, fig. 31 178
Proc. Amer. Philos. Soc., ii, 1841, p. 13.

Melania terebralis, Lea, pl. 6, fig. 32 178
Proc. Amer. Philos. Soc. ii, 1841, p. 13.

Melania columella, Lea, pl. 6, fig. 33 179
Proc. Amer. Philos. Soc., ii, 1841, p. 13.

Melania blanda, Lea, pl. 6, fig. 34 179
Proc. Amer. Philos. Soc., ii, 1841, p. 13.

Melania crebri-costata, Lea, pl. 6, fig. 35 179
Proc. Amer. Philos. Soc., ii, 1841, p. 13.

Melania Curreyana, Lea, pl. 6, fig. 36 180
Proc. Amer. Philos. Soc., ii, 1841, p. 13.

Melania Edgariana, Lea, pl. 6, fig. 37 180
Proc. Amer. Philos. Soc., ii, 1841, p. 14.

Melania decora, Lea, pl. 6, fig. 38 181
Proc. Amer. Philos. Soc., ii, 1841, p. 14.

Melania costulata, Lea, pl. 6, fig. 39 181
Proc. Amer. Philos. Soc., ii, 1841, p. 14.

Melania nitens, Lea, pl. 6, fig. 40 182
Proc. Amer Philos. Soc., ii, 1841, p. 14, as *M. nitida*.

Melania plicatula, Lea, pl. 6, fig. 41 182
Proc. Amer. Philos. Soc., ii, 1841, p. 14.

Melania concinna, Lea, pl. 6, fig. 42 183
Proc. Amer. Philos. Soc., ii, 1841, p. 14.

Melania Babylonica, Lea, pl. 6, fig. 43 183
Proc. Amer. Philos. Soc., ii, 1841, p. 14.

Melania exarata, Lea, pl. 6, fig. 44 183
Proc. Amer. Philos. Soc., ii, 1841, p. 14.

Melania Potosiensis, Lea, pl. 6, fig. 45 184
Proc. Amer. Philos. Soc., ii, 1841, p. 14.

Melania acuto-carinata, Lea, pl. 6, fig. 46 184
Proc. Amer. Philos. Soc., ii, 1841, p. 14.

Melania Warderiana, Lea, pl. 6, fig. 47 185
Proc. Amer. Philos. Soc., ii, 1841, p. 14.

Melania sulcosa, Lea, pl. 6, fig. 48 185
Proc. Amer. Philos. Soc., ii, 1841, p. 14.

Melania striata, Lea, pl. 6, fig. 49 186
Changed to *M. striatula* in Corrigenda.
Proc. Amer. Philos. Soc., ii, 1841, p. 15.

Melania pilula, Lea, pl. 6, fig. 50 186
Proc. Amer. Philos. Soc., ii, 1841, p. 15.

Melania circincta, Lea, pl. 6, fig. 51 187
Proc. Amer. Philos. Soc., ii, 1841, p. 15.

Melania venusta, Lea, pl. 6, fig. 52 187
Proc. Amer Philos. Soc., ii, 1841, p. 15.

Melania Florentiana, Lea, pl. 6, fig. 53 188
Proc. Amer. Philos. Soc., ii, 1841, p. 15.

Melania Duttoniana, Lea, pl. 6, fig. 54 188
Proc. Amer. Philos. Soc., ii, 1841, p. 15.

Melania Holstonia, Lea, pl. 6, fig. 55 189
Proc. Amer. Philos. Soc., ii, 1841, p. 15.

Melania caliginosa, Lea, pl. 6, fig. 56 189
Proc. Amer. Philos. Soc., ii, 1841, p. 15.

Melania nodulosa, Lea, pl. 6, fig. 57 190
Proc. Amer. Philos. Soc., ii, 1841, p. 15.

Melania Cincinnatiensis, Lea, pl. 6, fig. 58 190
Proc. Amer. Philos. Soc., i, 1839, p. 66.

Unio exiguus, Lea, pl. 7, fig. 1 191
Proc. Amer. Philos. Soc., i, 1840, p. 287.

Unio cucumoides, Lea, pl. 7, fig. 2 192
Proc. Amer. Philos. Soc., i, 1840, p. 285.

Unio cuneolus, Lea, pl. 7, fig. 3 193
Proc. Amer. Philos. Soc., i, 1840, p. 286.

1842. LEA, ISAAC—Continued.

Unio Cincinnatiensis, Lea, pl. 8, fig. 4 194
Proc. Amer. Philos. Soc., i, 1840, p. 285.
Unio Stonensis, Lea, pl. 8, fig. 5 195
Proc. Amer. Philos. Soc., i, 1840, p. 286.
Unio Lesueurianus, Lea, pl. 8, fig. 6 195
Proc. Amer. Philos. Soc., i, 1840, p. 286.
Unio dactylus, Lea, pl. 9, fig. 7 196
Proc. Amer. Philos. Soc., i, 1840, p. 287.
Unio biangulatus, Lea, pl. 9, fig. 8 197
Proc. Amer. Philos. Soc., i, 1840, p. 288, as *U. biangularis*.
Unio strigosus, Lea, pl. 9, fig. 9 198
Proc. Amer. Philos. Soc., i, 1840, p. 287.
Unio tener, Lea, pl. 10, fig. 10 198
Proc. Amer. Philos. Soc., i, 1840, p. 286.
Unio Tennesseensis, Lea, pl. 10, fig. 11 199
Proc. Amer. Philos. Soc., i, 1840, p. 288.
Unio amœnus, Lea, pl. 10, fig. 12 200
Proc. Amer. Philos. Soc., i, 1840, p. 286.
Unio obtusus, Lea, pl. 11, fig. 13 201
Proc. Amer. Philos. Soc., i, 1840, p. 287.
Unio fatuus, Lea, pl. 11, fig. 14 201
Proc. Amer. Philos. Soc., i, 1840, p. 287.
Unio Geddingsianus, Lea, pl. 11, fig. 15 202
Proc. Amer. Philos. Soc., i, 1840, p. 285.
Unio striatus, Lea, pl. 12, fig. 16 203
Proc. Amer. Philos. Soc., i, 1840, p. 287.
Unio tortivus, Lea, pl. 12, fig. 17 204
Proc. Amer. Philos. Soc., i, 1840, p. 287.
Unio lenior, Lea, pl. 12, fig. 18 204
Proc. Amer. Philos. Soc., i, 1840, p. 286, as *Unio lenis*.
Unio nitens, Lea, pl. 12, fig. 19 205
Proc. Amer. Philos. Soc., i, 1840, p. 288.
Unio lineatus, Lea, pl. 12, fig. 20 206
Proc. Amer. Philos. Soc., i, 1840, p. 287.
Unio atro-marginatus, Lea, pl. 13, fig. 21 207
Proc. Amer. Philos. Soc., i, 1840, p. 288.
Unio Boykinianus, Lea, pl. 13, fig. 22 208
Proc. Amer. Philos. Soc., i, 1840, p. 288.
Unio subangulatus, Lea, pl. 13, fig. 23 209
Proc. Amer. Philos. Soc., i, 1840, p. 287.
Unio pilaris, Lea, pl. 14, fig. 24 209
Proc. Amer. Philos. Soc., i, 1840, p. 285.
Unio tuberosus, Lea, pl. 14, fig. 25 210
Proc. Amer. Philos. Soc., i, 1840, p. 286.
Unio plenus, Lea, pl. 14, fig. 26 211
Proc. Amer. Philos. Soc., i, 1840, p. 286.
Unio Holstonensis, Lea, pl. 15, fig. 27 212
Proc. Amer. Philos. Soc., i, 1840, p. 288.
Unio Bournianus, Lea, pl. 15, fig. 28 213
Proc. Amer. Philos. Soc., i, 1840, p. 288.
Unio paulus, Lea, pl. 15, fig. 29 213
Proc. Amer. Philos. Soc., i, 1840, p. 287.
Unio Edgarianus, Lea, pl. 15, fig. 30 214
Proc. Amer. Philos. Soc., i, 1840, p. 288.
Unio dolabelloides, Lea, pl. 15, fig. 31 215
Proc. Amer. Philos. Soc., i, 1840, p. 288.
Unio Boydianus, Lea, pl. 16, fig. 32 216
Proc. Amer. Philos. Soc., i, 1840, p. 286.
Unio Sloatianus, Lea, pl. 16, fig. 33 217
Proc. Amer. Philos. Soc., i, 1840, p. 287.
Unio incrassatus, Lea, pl. 16, fig. 34 217
Proc. Amer. Philos. Soc., i, 1840, p. 286.
Unio delphinus, Lea, pl. 17, fig. 35 218
Proc. Amer. Philos. Soc., i, 1840, p. 285.

1842. LEA, ISAAC—Continued.

Unio pusillus, Lea, pl. 18, fig. 36 220
Proc. Amer. Philos. Soc., i, 1840, p. 286.
Unio Javanus, Lea, pl. 18, fig. 37 220
Proc. Amer. Philos. Soc., i, 1840, p. 285.
Unio orientalis, Lea, pl. 18, fig. 38 221
Proc. Amer. Philos. Soc., i, 1840, p. 285.
Margaritana Vendenbuschiana, Lea, pl. 18, fig. 39 222
Proc. Amer. Philos. Soc., i, 1840, p. 288.
Margaritana Curreyiana, Lea, pl. 18, fig. 40 223
Proc. Amer. Philos. Soc., i, 1840, p. 288.
Anodonta argentea, Lea, pl. 19, fig. 41 223
Proc. Amer. Philos. Soc., i, 1840, p. 289.
Anodonta Harpethensis, Lea, pl. 19, fig. 42 224
Proc. Amer. Philos. Soc., i, 1840, p. 289.
Anodonta ferruginea, Lea, pl. 19, fig. 43 225
Proc. Amer. Philos. Soc., i, 1840, p. 289.
Anodonta Footiana, Lea, pl. 20, fig. 44 225
Proc. Amer. Philos. Soc., i, 1840, p. 289.
Anodonta Maryattana, Lea, pl. 20, fig. 45 226
Proc. Amer. Philos. Soc., i, 1840, p. 289, as *A. Marryattiana*.
Anodonta Couperiana, Lea, pl. 20, fig. 46 227
Proc. Amer. Philos. Soc., i, 1840, p. 289, as *Unio Cowperiana*.
Melania Boykiniana, Lea, pl. 6, fig. 59 228
Proc. Amer. Philos. Soc., i, 1840, p. 289.
Melania catenoides, Lea, pl. 6, fig. 60 228
Proc. Amer. Philos. Soc., i, 1840, p. 289, as *Melania catenaria*.
Carocolla Cumberlandiana, Lea, pl. 6, fig. 61 229
Proc. Amer. Philos. Soc., i, 1840, p. 289.
Cyclostoma Cincinnatiensis, Lea, pl. 6, fig. 62 229
Proc. Amer. Philos. Soc., i, 1840, p. 289.
Unio Sapotalensis, Lea, pl. 21, fig. 47 233
Proc. Amer. Philos. Soc., ii, 1841, p. 30.
Unio Tecomatensis, Lea, pl. 21, fig. 48 234
Proc. Amer. Philos. Soc., ii, 1841, p. 30.
Unio Georgianus, Lea, pl. 21, fig. 49 235
Proc. Amer. Philos. Soc., ii, 1841, p. 31.
Unio Duttonianus, Lea, pl. 22, fig. 50 236
Proc. Amer. Philos. Soc., ii, 1841, p. 31.
Unio Bigbyensis, Lea, pl. 22, fig. 51 237
Proc. Amer. Philos. Soc., ii, 1841, p. 30.
Unio erocatus, Lea, pl. 22, fig. 52 238
Proc. Amer. Philos. Soc., ii, 1841, p. 31.
Unio Rajahensis, Lea, pl. 23, fig. 53 239
Proc. Amer. Philos. Soc., ii, 1841, p. 30.
Unio callosus, Lea, pl. 23, fig. 54 239
Proc. Amer. Philos. Soc., ii, 1841, p. 31.
Anodonta Montezuma, Lea, pl. 23, fig. 55 240
Proc. Amer. Philos. Soc., ii, 1841, p. 31.
Anodonta globosa, Lea, pl. 24, fig. 56 241
Proc. Amer. Philos. Soc., ii, 1841, p. 31.
Unio argenteus, Lea, pl. 25, fig. 57 242
Proc. Amer. Philos. Soc., ii, 1841, p. 82.
Unio sparsus, Lea, pl. 25, fig. 58 242
Proc. Amer. Philos. Soc., ii, 1841, p. 82.
Unio regularis, Lea, pl. 25, fig. 59 243
Proc. Amer. Philos. Soc., ii, 1841, p. 82.
Unio mæstus, Lea, pl. 26, fig. 60 244
Proc. Amer. Philos. Soc., ii, 1841, p. 82.
Unio Brumbyanus, Lea, pl. 26, fig. 62 245
This is given as *U. Brumleyanus*, in the *Proc. Amer. Philos. Soc.*, ii, 1841, p. 82.
Unio Dariensis, Lea, n. s., pl. 26, fig. 61 246
Proc. Amer. Philos. Soc., ii, 1843, p. 225.
Unio Haleianus, Lea, n. s., pl. 27, fig. 63 247
Proc. Amer. Philos. Soc., ii, 1843, p. 224.
Unio Foremanianus, Lea, n. s., pl. 27, fig. 64 247
Proc. Amer. Philos. Soc., ii, 1843, p. 224.

1842. LEA, ISAAC—Continued.

Anodonta Dunlapiana, Lea, n. s., pl. 27, fig. 65 248
Proc. Amer. Philos. Soc., ii, 1843, p. 225.

Systematic Index 250

Contents.

Corrigenda.

44.

1842. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descriptions of New Species in the Families Naïades, | Colimacea, Lymnæana, Melaniana | and Peristomiana. | Read before the American Philosophical Society, and originally | published in its Transactions, | with numerous plates. | By Isaac Lea, | [Title] | Vol. iii. | Philadelphia: | Printed for the author. 4°. pp. 88. pls. 5–27.

This is separate of No. 43, repaged, and forms volume III of the series of XIII volumes of "Observations on the Genus Unio."

45.

1842. LEA, ISAAC. Continuation of paper On New Fresh Water and Land Shells. <*Proc. Amer. Philos. Soc.*, ii, pp. 224–225. (October.)

Read before the American Philosophical Society October 21, 1842 The publication of Nos. 23 (August, September, and October, 1842) and 24 (November and December, 1842) of the Proceedings was announced to the Society January 6, 1843 (See *Proc. Amer. Philos. Soc.*, ii, p. 247), but No. 24 was received by the Academy of Natural Sciences, Philadelphia, on or before January 3, 1843. (See *Proc. Acad. Nat. Sci., Phila.*, i, p. 234.)

The full paper appears in the *Trans. Amer. Philos. Soc.*, vol. viii, pp. 246–249, as part of Article XII. (See No. 43.) The portion printed in the Proceedings consists of the Latin descriptions with mention of habitat.

Unio Foremanianus, Lea 224
Coosa River, Alabama, Dr. Brumby.
Trans. Amer. Philos. Soc., viii, 1842, p. 247.

Unio Haleianus, Lea 224
Mississippi River, 30 miles above New Orleans, Josiah Hale, M. D.
Trans. Amer. Philos. Soc., viii, 1842, p. 247.

Unio Dariensis, Lea 225
Near Darien, Georgia, J. H. Couper, Esq.
Trans. Amer. Philos. Soc., viii, 1842, p. 246.

Anodonta Dunlapiana, Lea 225
South Carolina, Mrs. Dunlap.
Trans. Amer. Philos. Soc., viii, 1842, p. 248.

46.

1843. LEA, ISAAC. [On the form and structure of turbinated and discoid univalve shells.] <*Proc. Amer. Philos. Soc.*, ii, pp. 234–235. No. 24. (November and December, 1842.)

Communication made November 18, 1842. No. 24 (November and December, 1842) of the Proceedings was received by the Academy of Natural Sciences of Philadelphia on or before January 3, 1843. (See *Proc. Acad. Nat. Sci., Phila.*, i, p. 234.)

Remarks relating to the conformation of the conchospiral to the logarithmic spiral, with measurements of *Turbo duplicatus*.

47.

1843. LEA, ISAAC. [Change of several specific names of Melaniæ, because of preoccupation.] <*Proc. Amer. Philos. Soc.*, ii, p. 237. (December, No. 24.)

Communication made December 2, 1842. No. 24 (Nov. & Dec., 1842), of the Proceedings was received by the Academy of Natural Sciences of Philadelphia on or before January 3, 1843. (See *Proc. Acad. Nat. Sci., Phila.*, i, p. 234.)

Melania rufa, to *M. rufescens*.

Melania striata, to *M. striatula*.

Melania lævigata, to *M. lævis*.

Melania corrugata, to *M. rugosa*.

Mr. Lea also proposed the provisional name of *pressus* for his *Unio compressus* (See *Trans. Amer. Philos. Soc.*, iii, N. S., p. 450, under *Symphynota compressa*) should Mr. Sowerby's *Unio compressus* prove to be a true *Unio*.

48.

1843. LEA, ISAAC. Continuation of Paper on Fresh Water Shells. <*Proc. Amer. Philos. Soc.*, ii, pp. 241–243. (December, No. 24.)

Read before the American Philosophical Society December 16, 1842. No. 24 (Nov. & Dec., 1842) of the Proceedings was received by the Academy of Natural Sciences, Philadelphia, on or before January 3, 1843. (See *Proc. Acad. Nat. Sci., Phila.*, i, p. 234.)

The full paper will be found in the Transactions of the American Philosophical Society, ix, pp. 24–30, as part of Article I (see No. 51), the portion published in the Proceedings consisting almost entirely of the Latin descriptions of the species. Besides this the names of four species are changed because of preoccupation.

Names changed because of preoccupation 242

Melania plicatula, to *M. Deshayesiana*.

Melania plicata, to *M. Menkiana* = *M. Menkiana*, Trans. Amer. Philos. Soc., ix, 1844, p. 24.

Melania exarata, to *M. arata*.

Planorbis lens, to *P. Brogniartiana*.

NEW SPECIES.

Melania Vanuxemiana, Lea, n. s 242
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 25.

Melania ovalis, Lea, n. s 242
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 25.

Melania Hayniana, Lea, n. s 242
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 25.

Melania excisa, Lea, n. s 242
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 25.

SCHIZOSTOMA, Lea, n. g 242
This is a new genus proposed in a foot-note for *Melania excisa* should the animal be found to differ from that of *Melania*.

Melania Ordiana, Lea, n. s 242
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 26.

Melania brevis, Lea, n. s 242
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 26.

Melania oliva, Lea, n. s 242
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 27.

Melania Foremani, Lea, n. s 242
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 27.

Melania torquata, Lea, n. s 242
Tennessee, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 27.

Melania producta, Lea, n. s 243
Tennessee, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 28.

Melania curvata, Lea, n. s 243
Tennessee, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 28.

Melania expansa, Lea, n. s 243
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 28.

Ancylosa incisa, Lea, n. s 243
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 28.

Ancylosa Foremani, Lea, n. s 243
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 29.

Ancylosa solida, Lea, n. s 243
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 29.

1843. LEA, ISAAC—Continued.

Anculosa flammata, Lea, n. s. 243
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 30.

Paludina incrassata, Lea, n. s. 243
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 30.

Paludina coarctata, Lea, n. s. 343
Alabama, Dr. Foreman.
Trans. Amer. Philos. Soc., ix, 1844, p. 30.

49.

1843. LEA, ISAAC. [Communication objecting to Mr. Haldeman's proposed change in the orthography of two of Mr. Lea's species of Unio.] <*Proc. Acad. Nat. Sci., Phila.*, i, pp. 215–216. (Nos. 20, 21, Nov. & Dec., 1842.)

Communicated to the Academy by letter, dated October 31, 1842, and read November 1, 1842. Nos. 20, 21 (Nov. & Dec., 1842) were received by the American Philosophical Society on or before February 3, 1843.

The species referred to are:
Unio Couperiana, Lea, and
Unio Nashvillianus, Lea.

50.

1843. LEA, ISAAC. Description of Twelve New Species of Uniones. By Isaac Lea. Read before the American Philosophical Society August 18, 1843.

Title taken from *Proc. Amer. Philos. Soc.*, iv, p. 11.

This is a printed sheet, dated August 19, 1843, and consists of the descriptions of twelve new species of Uniones contained in a memoir read before the American Philosophical Society August 18, 1843, permission having been given Mr. Lea to publish an abstract of the memoir in anticipation of the Transactions. Received by the Academy of Natural Sciences of Philadelphia on or before August 22, 1843. (See *Proc. Acad. Nat. Sci., Phila.*, i, p. 289.)

The full memoir will be found in the *Trans. Amer. Philos. Soc.*, ix, pp. 275–282. (See No. 54.)

Unio amygdalum, Lea, n. s.
Lake George, Florida, S. B. Buckley.
Trans. Amer. Philos. Soc., ix, p. 275.

Unio Buckleyi, Lea, n. s.
Lake George & Lake Monroe, Florida, S. B. Buckley.
Trans. Amer. Philos. Soc., ix, p. 276.

Unio minor, Lea, n. s.
Lake Monroe & Lake George, Florida, S. B. Buckley.
Trans. Amer. Philos. Soc., ix, p. 276.

Unio fuscatus, Lea, n. s.
Black Creek, Florida, S. B. Buckley.
Trans. Amer. Philos. Soc., ix, p. 277.

Unio Buddianus, Lea, n. s.
Lake George and Lake Monroe, S. B. Buckley.
Trans. Amer. Philos. Soc., ix, p. 277.

Unio trossulus, Lea, n. s.
Lake Monroe, Florida, S. B. Buckley.
Trans. Amer. Philos. Soc., ix, p. 278.

Unio occultus, Lea, n. s.
Black Creek and Lake Monroe, Florida, S. B. Buckley.
Trans. Amer. Philos. Soc., ix, p. 279.

Unio Monroensis, Lea, n. s.
Lake Monroe, Florida, S. B. Buckley.
Trans. Amer. Philos. Soc., ix, p. 279.

Unio aheneus, Lea, n. s.
Black Creek, Florida, S. B. Buckley.
Trans. Amer. Philos. Soc., ix, p. 280.

Unio neglectus, Lea, n. s.
North Alabama, Dr. Budd.
Trans. Amer. Philos. Soc., ix, p. 280.

Unio superbus, Lea, n. s.
New Holland, J. C. Jay, M. D.
Trans. Amer. Philos. Soc., ix, p. 281.

Unio aratus, Lea, n. s.
Hab.: ——.
Trans. Amer. Philos. Soc., ix, 282.

51.

1844. LEA, ISAAC. Continuation of Mr. Lea's Paper on Fresh Water and Land Shells. <*Trans. Amer. Philos. Soc.*, ix, Part I, pp. 1–31. Article I.

This article consists of three portions read at different times before the American Philosophical Society.

Pp. 1–17, read February 19, 1841. (See *Proc. Amer. Philos. Soc.*, ii, pp. 33–34.)

Pp. 17–23, read June 18, 1841. (See *Proc. Amer. Philos. Soc.*, ii, pp. 82–83.)

Pp. 24–30, read December 16, 1842. (See *Proc. Amer. Philos. Soc.*, ii, pp. 242–243.)

Part I of vol. ix of the Transactions was presented to the meeting of the American Philosophical Society April 5, 1844. (See *Proc. Amer. Philos. Soc.*, iv, 1844, p. 56.)

Remarks on the genera HELIX and CAROCOLLA (Lamarck) 1

Helix Tennesseensis, Lea 1
Proc. Amer. Philos. Soc., ii, 1841, p. 31.

Carocolla Edgariana, Lea 2
Proc. Amer. Philos. Soc., ii, 1841, p. 31.

Bulimus Jayanus, Lea 2
Proc. Amer. Philos. Soc., ii, 1841, p. 31.

Achatina turbinata, Lea 2
Proc. Amer. Philos. Soc., ii, 1841, p. 31.

Achatina striata, Lea 3
Proc. Amer. Philos. Soc., ii, 1841, p. 31.

Genus SUCCINEA (Draparnaud) 3

Succinea gracilis, Lea 3
Proc. Amer. Philos. Soc., ii, 1841, p. 31.

Succinea Wardiana, Lea 3
Proc. Amer. Philos. Soc., ii, 1841, p. 31.

Succinea Totteniana, Lea 4
Proc. Amer. Philos. Soc., ii, 1841, p. 32.

Succinea Nuttalliana, Lea 4
Proc. Amer. Philos. Soc., ii, 1841, p. 32.

Succinea aurea, Lea 4
Proc. Amer. Philos. Soc., ii, 1841, p. 32.

Succinea Candèana, Lea 5
Proc. Amer. Philos. Soc., ii, 1841, p. 32.

Succinea fulgens, Lea 5
Proc. Amer. Philos. Soc., ii, 1841, p. 32.

Succinea Oregonensis, Lea 5
Proc. Amer. Philos. Soc., ii, 1841, p. 32.

Succinea inflata, Lea 5
Proc. Amer. Philos. Soc., ii, 1841, p. 32.

PLANORBIS (Lamarck) 5

Planorbis regularis, Lea 6
Proc. Amer. Philos. Soc., ii, 1841, p. 32.

Planorbis Buchanensis, Lea 6
Proc. Amer. Philos. Soc., ii, 1841, p. 32.

Planorbis bellus, Lea 6
Proc. Amer. Philos. Soc., ii, 1841, p. 32.

PHYSA (Lamarck) 7

Physa Hildrethiana, Lea 7
Proc. Amer. Philos. Soc., ii, 1841, p. 32.

Physa inflata, Lea 7
Proc. Amer. Philos. Soc., ii, 1841, p. 32.

Physa Troostiana, Lea 7
Proc. Amer. Philos. Soc., ii, 1841, p. 32, as *Physa Troostensis*.

LYMNÆA (Lamarck) 8

Lymnæa Philadelphica, Lea 8
Proc. Amer. Philos. Soc., ii, 1841, p. 32.

Lymnæa Griffithiana, Lea 8
Proc. Amer. Philos. Soc., ii, 1841, p. 33.

Lymnæa Nuttalliana, Lea 9
Proc. Amer. Philos. Soc., ii, 1841, p. 33.

Lymnæa bulimoides, Lea 9
Proc. Amer. Philos. Soc., ii, 1841, p. 33.

Lymnæa exigua, Lea 9
Proc. Amer. Philos. Soc., ii, 1841, p. 33.

1844. LEA, ISAAC—Continued.

Lymnæa planulata, Lea 9
Proc. Amer. Philos. Soc., ii, 1841, p. 33.
Lymnæa fusiformis, Lea 10
Proc. Amer. Philos. Soc., ii, 1841, p. 33.
Lymnæa rustica, Lea 10
Proc. Amer. Philos. Soc., ii, 1841, p. 33.
Lymnæa plica, Lea 10
Proc. Amer. Philos. Soc., ii, 1841, p. 33.
Lymnæa coarctata, Lea 11
Proc. Amer. Philos. Soc., ii, 1841, p. 33.
Lymnæa casta, Lea 11
Proc. Amer. Philos. Soc., ii, 1841, p. 33.
Lymnæa parva, Lea 11
Proc. Amer. Philos. Soc., ii, 1841, p. 33.
Lymnæa curta, Lea 11
Proc. Amer. Philos. Soc., ii, 1841, p. 33.
Lymnæa strigosa, Lea 12
Proc. Amer. Philos. Soc., ii, 1841, p. 33.
Lymnæa Kirtlandiana, Lea 12
Proc. Amer. Philos. Soc., ii, 1841, p. 33.
Lymnæa rubella, Lea 12
Proc. Amer. Philos. Soc., ii, 1841, p. 33.
PALUDINA (Lamarck) 13
Paludina regularis, Lea 13
Proc. Amer. Philos. Soc., ii, 1841, p. 34.
Paludina obtusa, Lea 13
Proc. Amer. Philos. Soc., ii, 1841, p. 34.
Paludina Troostiana, Lea 14
Proc. Amer. Philos. Soc., ii, 1841, p. 34.
ANCULOSA (Say) 14
Anculosa Troostiana, Lea 15
Proc. Amer. Philos. Soc., ii, 1841, p. 34.
Anculosa gibbosa, Lea 15
Proc. Amer. Philos. Soc., ii, 1841, p. 34.
Anculosa carinata, Lea 15
Proc. Amer. Philos. Soc., ii, 1841, p. 34.
Anculosa variabilis, Lea 15
Proc. Amer. Philos. Soc., ii, 1841, p. 34.
AMNICOLA (Gould) 16
Amnicola orbiculata, Lea 16
Proc. Amer. Philos. Soc., ii, 1841, p. 34.
Amnicola parva, Lea 16
Proc. Amer. Philos. Soc., ii, 1841, p. 34.
IO (Lea) 17
Io tenebrosa, Lea 17
Proc. Amer. Philos. Soc., ii, 1841, p. 34.
Helix Mobiliana, Lea 17
Proc. Amer. Philos. Soc., ii, 1841, p. 82.
Helix minutissima, Lea 17
Proc. Amer. Philos. Soc., ii, 1841, p. 82.
Melania turgida, Lea 18
Proc. Amer. Philos. Soc., ii, 1841, p. 82.
Melania glabra, Lea 18
Proc. Amer. Philos. Soc., ii, 1841, p. 82.
Melania perfusca, Lea 18
Proc Amer. Philos. Soc., ii, 1841, p. 82.
Melania picta, Lea 19
Proc. Amer. Philos. Soc., ii, 1841, p. 82.
Melania impressa, Lea 19
Proc. Amer. Philos. Soc., ii, 1841, p. 83.
Melania robusta, Lea 19
Proc. Amer. Philos. Soc., ii, 1841, p. 83.
Melania Jayana, Lea 20
Proc. Amer. Philos. Soc., ii, 1841, p. 83.
Anculosa rubiginosa, Lea 20
Proc. Amer. Philos. Soc., ii, 1841, p. 83.

1844. LEA, ISAAC—Continued.

Anculosa Griffithiana, Lea 20
Proc. Amer. Philos. Soc., ii, 1841, p. 83.
Anculosa tuberculata, Lea 21
Proc. Amer. Philos. Soc., ii, 1841, p. 83.
Valvata bicarinata, Lea 21
Proc. Amer. Philos. Soc., ii, 1841, p. 83.
Paludina angulata, Lea 22
Proc. Amer. Philos. Soc., ii, 1841, p. 83.
Paludina Coosaensis, Lea 23
Proc. Amer. Philos. Soc., ii, 1841, p. 83.
Paludina cyclostomatiformis, Lea 23
Proc. Amer. Philos. Soc., ii, 1841, p. 83, as *Paludina cyclostomaformis*.
Remarks on the Genus Melania 25
Foot note changing *Melania plicatula*, Lea, to *M. Deshayesiana*, Lea; *M. plicata*, Lea, to *M. Menkiana*, Lea; *M. exarata*, Lea, to *M. arata*, Lea; and *Planorbis lens*, Lea, to *P. Brogniartiana*, Lea.
Proc. Amer. Philos. Soc., ii, 1842, p. 242.
Melania Vanuxemiana, Lea 25
Proc. Amer. Philos. Soc., ii, 1843, p. 242.
Melania ovalis, Lea 25
Proc. Amer. Philos. Soc., ii, 1843, p. 242.
Melania Haysiana, Lea 25
Proc. Amer. Philos. Soc., ii, 1843, p. 242.
Melania excisa, Lea 25
Proc. Amer. Philos. Soc., ii, 1843, p. 242.
Melania Ordiana, Lea 26
Proc. Amer. Philos. Soc., ii, 1843, p. 242.
Melania brevis, Lea 26
Proc. Amer. Philos. Soc., ii, 1843, p. 242.
Melania oliva, Lea 27
Proc. Amer. Philos. Soc., ii, 1843, p. 242.
Melania Foremani, Lea 27
Proc. Amer. Philos. Soc., ii, 1843, p. 242.
Melania torquata, Lea 27
Proc. Amer. Philos. Soc., ii, 1843, p. 242.
Melania producta, Lea 28
Proc. Amer. Philos. Soc., ii, 1843, p. 243.
Melania curvata, Lea 28
Proc. Amer. Philos. Soc., ii, 1843, p. 243.
Melania expansa, Lea 28
Proc. Amer. Philos. Soc., ii, 1843, p. 243.
Anculosa incisa, Lea 28
Proc. Amer. Philos. Soc., ii, 1843, p. 243.
Anculosa Foremani, Lea 29
Proc. Amer. Philos. Soc., ii, 1843, p. 243.
Anculosa solida, Lea 29
Proc. Amer. Philos. Soc., ii, 1843, p. 243.
Anculosa flammata, Lea 30
Proc. Amer. Philos. Soc., ii, 1843, p. 243.
Paludina incrassata, Lea 30
Proc. Amer. Philos. Soc., ii, 1843, p. 243.
Paludina coarctata, Lea 30
Proc. Amer. Philos. Soc., ii, 1843, p. 243.
Systematic Index 31

52.

1844. LEA, ISAAC. [Names of twelve new species of Uniones.] <*Proc. Amer. Philos. Soc.*, iv, p. 8.

Reporter's note on the paper entitled "On New Fresh Water Shells," read August 18, 1843. Minutes of the meeting issued May 3, 1844. (See *Proc. Amer. Philos. Soc.*, iv, 1844, p. 81.)

The names of the species are given without descriptions, and are as follows: *U. Buckleyi*, *U. Buddianus*, *U. minor*, *U. amygdalum*, *U. occultus*, *U. Monroensis*, *U. aheneus*, *U. fuscatus*, *U. trisculus*, *U. superbus*, *U. aratus*, *U. neglectus*; but the descriptions were published August 19, 1843. (See No. 50.)

The full article will be found in the *Trans. Amer. Philos. Soc.*, ix, Part II, pp. 275-282. (See No. 54.)

53.

1845. LEA, ISAAC. Descriptions of New Fresh Water and Land Shells. <*Proc. Amer. Philos. Soc.*, iv, pp. 162–168. No. 33 (May–August, 1845).

Read before the American Philosophical Society May 2, 1845. No. 33 (May–August) presented to the meeting of the Society December 5, 1845.

The full paper will be found in the *Trans. Amer. Philos. Soc.*, x, Part I, pp. 67–101. (See No. 55.) The portion published in the Proceedings consists of the Latin descriptions of the species.

Unio compressissimus, Lea, n. s. 163
Holston River, Tenn., President Estabrook.
Trans. Amer. Philos. Soc., x, 1848, p. 81.

Unio pellucidus, Lea, n. s. 163
Chattahoochee River, Georgia, Major Le Conte.
Trans. Amer. Philos. Soc., x, 1848, p. 70.

Unio pernodosus, Lea, n. s. 163
North Carolina, B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 71.

Unio atrocostatus, Lea, n. s. 163
Claiborne, Ala., Judge Tait; Tuscaloosa, Ala., B. W. Budd, M. D.; Alexandria, La., Josiah Hale, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 70.

Unio latecostatus, Lea, n. s. 163
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 68.

Unio hippopœus, Lea, n. s. 163
Lake Erie, B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 67.

Unio simplex, Lea, n. s. 163
Black Warrior River, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 76.

Unio unicolor, Lea, n. s. 163
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 74.

Unio flavescens, Lea, n. s. 163
Black Warrior River, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 72.

Unio pallescens, Lea, n. s. 164
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 79.

Unio utriculus, Lea, n. s. 164
North Carolina, B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 69.

Unio spatulatus, Lea, n. s. 164
Rock River, Wisconsin, Capt. Marryatt and B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 80.

Unio tumescens, Lea, n. s. 164
Alexandria, La., J. Hale, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 71.

Unio caperatus, Lea, n. s. 164
Clinch River, Tenn., Pres't Estabrook.
Trans. Amer. Philos. Soc., x, 1848, p. 75.

Unio fulgidus, Lea, n. s. 164
Alexandria, La., J. Hale, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 73.

Unio pulvinulus, Lea, n. s. 164
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 81.

Unio hyalinus, Lea, n. s. 164
Richmond, Va., Major Le Conte.
Trans. Amer. Philos. Soc., x, 1848, p. 69.

Unio Estabrookianus, Lea, n. s. 164
Clinch River and Second Creek, Tenn., President Estabrook.
Trans. Amer. Philos. Soc., x, 1848, p. 77.

Unio approximus, Lea, n. s. 164
Red River at Alexandria, La., J. Hale, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 74.

1845. LEA, ISAAC—Continued.

Unio symmetricus, Lea, n. s 164
Red River at Alexandria, La., J. Hale, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 73.

Unio fuliginosus, Lea, n. s 164
Cobb's Creek, near Philadelphia, R. E. Griffith, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 78.

Unio caliginosus, Lea, n. s 165
Red River at Alexandria, La., J. Hale, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 79.

Unio Binneyi, Lea, n. s 165
Southern States, R. E. Griffith, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 77.

Unio Gouldii, Lea, n. s 165
Tuscaloosa, Ala., R. E. Griffith, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 76.

Margaritana minor, Lea, n. s 165
Tennessee, S. M. Edgar, M. D.; North Carolina, B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 82.

Anodonta tetragona, Lea, n. s 165
Alexandria, La., J. Hale, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 82.

Melania Buddii, Lea, n. s 165
Tennessee, B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 90.

Melania torta, Lea, n. s 165
Big Creek, Lawrence County, Tenn., J. Clark.
Trans. Amer. Philos. Soc., x, 1848, p. 84.

Melania pernodosa, Lea, n. s 165
Cyprus Creek, Florence, Ala., T. R. Dutton.
Trans. Amer. Philos. Soc., x, 1848, p. 92.

Melania filum, Lea, n. s 165
Alabama, Major Le Conte.
Trans. Amer. Philos. Soc., x, 1848, p. 88.

Melania nobilis, Lea, n. s 165
Alabama, Major Le Conte.
Trans. Amer. Philos. Soc., x, 1848, p. 91.

Melania carino-costata, Lea, n. s 165
Alabama, Major Le Conte; Tennessee, B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 88.

Melania abrupta, Lea, n. s 165
Alabama, Major Le Conte.
Trans. Amer. Philos. Soc., x, 1848, p. 85.

Melania pallescens, Lea, n. s 166
Chester District, S. C., Prof. Vanuxem.
Trans. Amer. Philos. Soc., x, 1848, p. 89.

Melania lugubris, Lea, n. s 166
Alabama, Major Le Conte.
Trans. Amer. Philos. Soc., x, 1848, p. 84.

Melania spinalis, Lea, n. s 166
Alabama, Major Le Conte.
Trans. Amer. Philos. Soc., x, 1848, p. 89.

Melania spurca, Lea, n. s 166
Alabama, Major Le Conte.
Trans. Amer. Philos. Soc., x, 1848, p. 85.

Melania harpa, Lea, n. s 166
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 90.

Melania basalis, Lea, n. s 166
Alabama, Major Le Conte.
Trans. Amer. Philos. Soc., x, 1848, p. 85.

Melania auriculæformis, Lea, n. s 166
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 88.

Melania pumila, Lea, n. s 166
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 86.

1845. LEA, ISAAC—Continued.

Melania protea, Lea, n. s 164
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 83.

Melania arctata, Lea, n. s 166
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 90.

Melania solida, Lea, n. s 166
Tennessee, E. Foreman, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 83.

Melania crebristriata, Lea, n. s 166
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 91.

Melania modesta, Lea, n. s 166
Chattahoochee River at Columbus, Georgia, Dr. Boykin.
Trans. Amer. Philos. Soc., x, 1848, p. 86.

Melania Haleiana, Lea, n. s 167
Alexandria, La., J. Hale, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 86.

Melania Alexandrensis, Lea, n. s 167
Alexandria, La., J. Hale, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 87.

Melania ovoidea, Lea, n. s 167
Alexandria, La., J. Hale, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 87.

Anculosa squalida, Lea, n. s 167
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 92.

Anculosa tintinnabulum, Lea, n. s 167
Tennessee, E. Foreman, M. D.; Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 93.

Schizostoma pagoda, Lea, n. s 167
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 93.

Schizostoma Buddii, Lea, n. s 167
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 94.

Schizostoma Babylonicum, Lea, n. s. 167
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 94.

Schizostoma constrictum, Lea, n. s 167
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 94.

Schizostoma laciniatum, Lea, n. s 167
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 95.

Schizostoma funiculatum, Lea, n. s 167
Tuscaloosa, Ala., B. W. Budd, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 95.

Paludina Halciana, Lea, n. s 167
Alexandria, La., J. Hale, M. D.
Trans. Amer. Philos. Soc., x, 1848, p. 96.

54.

1845? LEA, ISAAC. Description of New Fresh Water and Land Shells. <*Trans. Amer. Philos. Soc.*, ix, pp. 275–282, Part II.

Read before the Amer. Philosophical Society August 18, 1843. For the first publication of the descriptions of the species described in this memoir see No. 50.

Unio amygdalum, Lea, pl. 39, fig. 1 275
Unio Buckleyi, Lea, pl. 39, fig. 2 276
Unio minor, Lea, pl. 39, fig. 3 276
Unio fuscatus, Lea, pl. 40, fig. 4 277
Unio Buddianus, Lea, pl. 40, fig. 5 277
Unio trossulus, Lea, pl. 40, fig. 6 278
Unio occultus, Lea, pl. 41, fig. 7 279

1845 f LEA, ISAAC—Continued.

Unio Monroensis, Lea, pl. 41, fig. 8 279
Unio aheneus, Lea, pl. 41, fig. 9 280
Unio neglectus, Lea, pl. 42, fig. 10 280
Unio superbus, Lea, pl. 42, fig. 11 281
Unio aratus, Lea, pl. 42, fig. 12 282

55.

1848. LEA, ISAAC. Description of New Fresh Water and Land Shells. <*Trans. Amer. Philos. Soc.*, x, Part I, pp. 67–101.

Read before the American Philosophical Society May 2nd, 1845. Part I of the Transactions, vol. x, was presented to the meeting of the society January 7, 1848. (See *Proc. Amer. Philos. Soc.*, v, 1848, p. 4.)

The Latin descriptions of the species described in this memoir were first published in the Proc. Amer. Philos. Soc., iv, pp. 163–168. (See No. 53.)

Unio hippopœus, Lea, pl. 1, fig. 1 67
Proc. Amer. Philos. Soc., iv, 1845, p. 163.
Unio latecostatus, Lea, pl. 1, fig. 2 68
Proc. Amer. Philos. Soc., iv, 1845, p. 163.
Unio utriculus, Lea, pl. 1, fig. 3 69
Proc. Amer. Philos. Soc., iv, 1845, p. 164.
Unio hyalinus, Lea, pl. 2, fig. 4 69
Proc. Amer. Philos. Soc., iv, 1845, p. 164.
Unio atro-costatus, Lea, pl. 2, fig. 5 70
Proc. Amer. Philos. Soc., iv, 1845, p. 163.
Unio pellucidus, Lea, pl. 2, fig. 6 70
Proc. Amer. Philos. Soc., iv, 1845, p. 163.
Unio tumescens, Lea, pl. 3, fig. 7 71
Proc. Amer. Philos. Soc., iv, 1845, p. 164.
Unio pernodosus, Lea, pl. 3, fig. 8 71
Proc. Amer. Philos. Soc., iv, 1845, p. 163.
Unio flavescens, Lea, pl. 3, fig. 9 72
Proc. Amer. Philos. Soc., iv, 1845, p. 163.
Unio fulgidus, Lea, pl. 4, fig. 10 73
Proc. Amer. Philos. Soc., iv, 1845, p. 164.
Unio symmetricus, Lea, pl. 4, fig. 11 73
Proc. Amer. Philos. Soc., iv, 1845, p. 164.
Unio unicolor, Lea, pl. iv, fig. 12 74
Proc. Amer. Philos. Soc., iv, 1845, p. 163.
Unio approximus, Lea, pl. v, fig. 13 74
Proc. Amer. Philos. Soc., iv, 1845, p. 164.
Unio caperatus, Lea, pl. v, fig. 14 75
Proc. Amer. Philos. Soc., iv, 1845, p. 164.
Unio simplex, Lea, pl. v, fig. 15 76
Proc. Amer. Philos. Soc., iv, 1845, p. 163.
Unio Gouldii, Lea, pl. vi, fig. 16 76
Proc. Amer. Philos. Soc., iv, 1845, p. 165.
Unio Estabrookianus, Lea, pl. vi, fig. 17 77
Proc. Amer. Philos. Soc., iv, 1845, p. 164.
Unio Binneyi, Lea, pl. vi, fig. 18 77
Proc. Amer. Philos. Soc., iv, 1845, p. 165.
Unio fuliginosus, Lea, pl. vii, fig. 19 78
Proc. Amer. Philos. Soc., iv, 1845, p. 164.
Unio pallescens, Lea, pl. vii, fig. 20 79
Proc. Amer. Philos. Soc., iv, 1845, p. 164.
Unio caliginosus, Lea, pl. vii, fig. 21 79
Proc. Amer. Philos. Soc., iv, 1845, p. 165.
Unio spatulatus, Lea, pl. viii, fig. 22 80
Proc. Amer. Philos. Soc., iv, 1845, p. 164.
Unio compressissimus, Lea, pl. viii, fig. 23 81
Proc. Amer. Philos. Soc., iv, 1845, p. 163.
Unio pulvinulus, Lea, pl. viii, fig. 24 81
Proc. Amer. Philos. Soc., iv, 1845, p. 164.

1848. LEA, ISAAC—Continued.

Anodonta tetragona, Lea, pl. viii, fig. 25 82
Proc. Amer. Philos. Soc., iv, 1845, p. 165.
Margaritana minor, Lea, pl. viii, fig. 26 82
Proc. Amer. Philos. Soc., iv, 1845, p. 165.
Melania solida, Lea, pl. ix, fig. 27 83
Proc. Amer. Philos. Soc., iv, 1845, p. 166.
Melania proteus, Lea, pl. ix, fig. 28 83
Proc. Amer. Philos. Soc., iv, 1845, p. 166.
Melania lugubris, Lea, pl. ix, fig. 29 84
Proc. Amer. Philos. Soc., iv, 1845, p. 166.
Melania torta, Lea, pl. ix, fig. 30 84
Proc. Amer. Philos. Soc., iv, 1845, p. 165.
Melania spurca, Lea, pl. ix, fig. 31 85
Proc. Amer. Philos. Soc., iv, 1845, p. 166.
Melania abrupta, Lea, pl. ix, fig. 32 85
Proc. Amer. Philos. Soc., iv, 1845, p. 165.
Melania basalis, Lea, pl. ix, fig. 33 86
Proc. Amer. Philos. Soc., iv, 1845, p. 166.
Melania modesta, Lea, pl. ix, fig. 34 86
Proc. Amer. Philos. Soc., iv, 1845, p. 166.
Melania Haleiana, Lea, pl. ix, fig. 35 86
Proc. Amer. Philos. Soc., iv, 1845, p. 167.
Melania pumila, Lea, pl. ix, fig. 36 86
Proc. Amer. Philos. Soc., iv, 1845, p. 166.
Melania Alexandrensis, Lea, pl. ix, fig. 37 87
Proc. Amer. Philos. Soc., iv, 1845, p. 167.
Melania ovoidea, Lea, pl. iv, fig. 38 87
Proc. Amer. Philos. Soc., iv, 1845, p. 167.
Melania auriculæformis, Lea, pl. ix, fig. 39 88
Proc. Amer. Philos. Soc., iv, 1845, p. 166.
Melania carino-costata, Lea, pl. ix, fig. 40 88
Proc. Amer. Philos. Soc., iv, 1845, p. 165.
Melania flum, Lea, pl. ix, fig. 41 88
Proc. Amer. Philos. Soc., iv, 1845, p. 165.
Melania spinalis, Lea, pl. ix, fig. 42 89
Proc. Amer. Philos. Soc., iv, 1845, p. 166.
Melania pallescens, Lea, pl. ix, fig. 43 89
Proc. Amer. Philos. Soc., iv, 1845, p. 166.
Melania Buddii, Lea, pl. ix, fig. 44 90
Proc. Amer. Philos. Soc., iv, 1845, p. 165.
Melania harpa, Lea, pl. ix, fig. 45 90
Proc. Amer. Philos. Soc., iv, 1845, p. 166.
Melania arctata, Lea, pl. ix, fig. 46 90
Proc. Amer. Philos. Soc., iv, 1845, p. 166.
Melania crebri-striata, Lea, pl. ix, fig. 47 91
Proc. Amer. Philos. Soc., iv, 1845, p. 166.
Melania nobilis, Lea, pl. ix, fig. 48 91
Proc. Amer. Philos. Soc., iv, 1845, p. 165.
Melania pernodosa, Lea, pl. ix, fig. 49 92
Proc. Amer. Philos. Soc., iv, 1845, p. 165.
Anculosa squalida, Lea, pl. ix, fig. 50 93
Proc. Amer. Philos. Soc., iv, 1845, p. 167.
Anculosa tintinnabulum, Lea, pl. ix, fig. 51 93
Proc. Amer. Philos. Soc., iv, 1845, p. 167.
SCHIZOSTOMA [Foot-note] 93
Schizostoma pagoda, Lea, pl. ix, fig. 52 93
Proc. Amer. Philos. Soc., iv, 1845, p. 167.
Schizostoma Buddii, Lea, pl. ix, fig. 53 94
Proc. Amer. Philos. Soc., iv, 1845, p. 167.
Schizostoma Babylonicum, Lea, pl. ix, fig. 54 94
Proc. Amer. Philos. Soc., iv, 1845, p. 167.
Schizostoma constrictum, Lea, pl. ix, fig. 55 94
Proc. Amer. Philos. Soc., iv, 1845, p. 167.
Schizostoma funiculatum, Lea, pl. ix, fig. 56 95
Proc. Amer. Philos. Soc., iv, 1845, p. 167.

1848. LEA, ISAAC—Continued.

Schizostoma laciniatum, Lea, pl. ix, fig. 57 95
Proc. Amer. Philos. Soc., iv, 1845, p. 167.
Paludina Haleiana, Lea, pl. ix, fig. 58 96
Proc. Amer. Philos. Soc., iv, 1845, p. 167.
Catalogue of the Genus *Melania*, recent and fossil 96
Systematic Index 101

56.

1848. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descriptions of New Species in the Families Naïades, | Colimacea, Lymnæana, Melaniana, | and Peristomiana. | Read before the American Philosophical Society, and Originally | Published in its Transactions. | with numerous plates. | By Isaac Lea, | Member of the Am. Phil. Soc.; of the Zoological Soc. | of London; of the Imperial Soc. of Nat. | Hist. of Moscow; Etc. Etc. | Vol. IV. | Philadelphia: | Printed for the Author. 4°. pp. 101. with plates 39–42 of vol. ix and 1–9 of vol. x, of the *Trans. Amer. Philos. Soc.*

This consists of numbers 51, 54, and 55, forming volume iv of the series entitled "Observations on the Genus Unio," &c.

57.

1849. LEA, ISAAC. [Upon some Reptilian foot-marks (*Sauropus primævus*) recently discovered near Pottsville, Pa.] <*Proc. Amer. Philos. Soc.*, v, pp. 91–94 (one cut). No. 43, April–September.

Communication made June 15, 1849. (See *Proc. Amer. Philos. Soc.*, v, 1849, p. 109.)

A large portion of this was reprinted in the American Journal of Science and Arts, ix, 1850, pp. 124–126, under the title, "On Reptilian foot-marks in the gorge of the Sharp Mountain near Pottsville, Pa."

58.

1849. LEA, ISAAC. On Traces of a Fossil Reptile (*Sauropus primævus*) found in the Old Red Sandstone. <Report Nineteenth Meeting British Association Advancement of Science, 1849, p. 56.

59.

1850. LEA, ISAAC, and HENRY C. LEA. Description of a New Genus of the Family Melaniana, and of many New Species of the Genus Melania, chiefly collected by Hugh Cuming, Esq., during his Zoological Voyage in the East, and now first described. <*Proc. Zool. Soc.* of London, xviii, 1850, pp. 179–197.

Read before the Zoological Society of London, July 9, 1850. See No. 61.

PACHYCHILUS, I. & H. C. Lea, n. g. 179
Pachychilus Cumingii, I. & H. C. Lea, n. s. 179
Large rivers, Copan, Central America.
Melania canalis, I. & H. C. Lea, n. s. 180
Small streams, island of Guimaras, Philippines.
Melania fœda, I. & H. C. Lea, n. s. 180
Rocky stream, Java.
Melania sobria, I. & H. C. Lea, n. s. 181
Very small streams, Siquijor, Philippines.
Melania subula, I. & H. C. Lea, n. s. 181
Small river in the province of Ho Ho, isle of Panay, Philippines.
Melania acus, I. & H. C. Lea, n. s. 181
Small stream, Guimaras, Philippines.
Melania dermestoidea, I. & H. C. Lea, n. s. 181
Seychelles Islands.
Melania contracta, I. & H. C. Lea, n. s. 182
Seychelles Islands.
Melania ferruginea, I. & H. C. Lea, n. s. 182
Zanzibar, East Africa.
Melania impura, I. & H. C. Lea, n. s. 182
Naga, province of South Cumarines, Luzon, Philippines.

1850. LEA, ISAAC—Continued.

Melania cochlidium, I. & H. C. Lea, n. s 183
Very small streams, islands of Siquijor and Guimaras, Philippines.

Melania cincta, I. & H. C. Lea, n. s 183
India.

Melania lancea, I. & H. C. Lea, n. s 183
Ohcataroa, Society Islands.

Melania episcopalis, I. & H. C. Lea, n. s 184
A sluggish river, Malacca.

Melania blatta, I. & H. C. Lea, n. s 184
Rapid river and small streams, Luzon, Philippines.

Melania costellaris, I. & H. C. Lea, n. s 184
Small streams in the islands of Negros, Tanhay, Siquijor, Philippines.

Melania recta, I. & H. C. Lea, n. s 185
Very small streams, Siquijor and isle of Negros, Philippines.

Melania australis, I. & H. C. Lea, n. s 185
Victoria River, North Australia.

Melania tornatella, I. & H. C. Lea, n. s 185
Shallow rivers, Tanhay, isle of Negros, Philippines.

Melania rudis, I. & H. C. Lea, n. s 186
Amboyna.

Melania microstoma, I. & H. C. Lea, n. s 186
Mountain streams, isle of Negros, Philippines.

Melania transversa, I. & H. C. Lea, n. s 186
Guiana.

Melania maxima, I. & H. C. Lea, n. s 187
Copan, Central America.

Melania Mindoriensis, I. & H. C. Lea, n. s 187
Small streams, Puerto Galero, isle of Mindoro, Philippines.

Melania indefinita, I. & H. C. Lea, n. s 187
Naga, Luzon, Philippines.

Melania Luzoniensis, I. & H. C. Lea, n. s 188
Small streams, Calanang, province of Bai, Philippines.

Melania albescens, I. & H. C. Lea, n. s 188
Small streams, isles of Guimaras, Negros and Siquijor, Philippines.

Melania hastula, I. & H. C. Lea, n. s 189
Various streams of Siquijor, Cagayan, Mindanao, and other Philippine Islands.

Melania juncea, I. & H. C. Lea, n. s 189
Lake of Taal, province of Batanos, and small streams in Luzon, Philippines.

Melania conulus, I. & H. C. Lea, n. s 190
Small streams, Fernando Po, West Africa.

Melania obruta, I. & H. C. Lea, n. s 190
Hab.—?

Melania turriculus, I. & H. C. Lea, n. s 190
Small streams, Calanang, province of Bai, Luzon, Philippines.

Melania apis, I. & H. C. Lea, n. s 190
Marshy places, Vera Cruz, Mexico.

Melania Cumingii, I. & H. C. Lea, n. s 191
Very small streams, island of Siquijor, Philippines.

Melania dactylus, I. & H. C. Lea, n. s 191
Small streams in Guimaras, Mindanao, Luzon and Seyte, Philippines.

Melania crenifera, I. & H. C. Lea, n. s 192
Small river in Java.

Melania nana, I. & H. C. Lea, n. s 192
Mountain streams, isle of Negros, Philippines.

Melania tessellata, I. & H. C. Lea, n. s 192
Hab.—?

Melania crebrum, I. & H. C. Lea, n. s 193
Small streams, Guimaras, Philippines.

Melania reticulata, I. & H. C. Lea, n. s 193
China.

Melania aculeus, Lea. (Redescribed) 193
Siquijor, Naga, Cagayan, and others of the Philippines.

Melania diadema, I. & H. C. Lea, n. s 194
Small streams, isle of Guimaras, Philippines.

Melania cornuta, I. & H. C. Lea, n. s 194
Madagascar.

50. LEA, ISAAC—Continued.

Melania acanthica, I. & H. C. Lea, n. s 194
Manila and Isle of Negros, Philippines.

Melania zeylanica, I. & H. C. Lea, n. s 194
Seychelles and Ceylon.

Melania polygonata, I. & H. C. Lea, n. s 195
Copan, Central America.

Melania denticulata, I. & H. C. Lea, n. s 195
Mountain streams, Isle of Negros, Philippines.

Melania armillata, I. & H. C. Lea, n. s 195
India.

Melania cochlea, I. & H. C. Lea, n. s 196
Hab.—?

Melania lateritia, I. & H. C. Lea, n. s 196
Philippines.

Melania modicella, I. & H. C. Lea, n. s 196
Timor.

Melania pagoda, I. & H. C. Lea, n. s 197
Isle of Guimaras, Philippines.

60.

0. LEA, ISAAC. Description of Five New Species of Anodontæ, collected by H. Cuming, Esq., in the East Indies. <*Proc. Zool. Soc. of London*, xviii, 1850, pp. 197–199.

Read before the Zoological Society of London, July 9, 1850.
This, with No. 59, forms No. 61.

Anodonta gracilis, Lea, n. s 197
Dingle, Isle of Panay.

Anodonta crepera, Lea, n. s 198
Bongabon, Luzon, Philippines.

Anodonta tenuis, Lea, n. s 198
Sual, Luzon, Philippines.

Anodonta suberassa, Lea, n. s 198
Laguna de Bai, Luzon, Philippines.

Anodonta Cumingii, Lea, n. s 199
Malacca.

61.

51. LEA, ISAAC, and HENRY C[AREY] LEA. Description | of | a New Genus of | the Family Melaniana, | and of many New Species of the | Genus Melania, | chiefly collected by Hugh Cuming, Esq., | during his zoological voyage in the East, and now first | described. | By Isaac Lea and Henry C[arey] Lea, | Philadelphia. | also | Descriptions | of | Five New Species of | Anodontæ, | collected by H. Cuming, Esq., in the East Indies. | By Isaac Lea. | — | London: | Printed by Richard Taylor, Red Lion Court, Fleet Street, | 1851. 8°. Pp. 179–199.

This consists of Nos. 59 and 60.
Sabin in his Bibliotheca Americana mentions an edition of this published in Philadelphia, 1851.

62.

51. LEA, ISAAC. [Exhibition of large Unios from the Little Miami River, near Cincinnati, Ohio.] <*Proc. Amer. Philos. Soc.*, v, p. 153. No. 45, April–December, 1850.

Verbal communication made June 21, 1850. No. 45 of the Proceedings presented to the meeting of the Society January 3, 1851. (See *Proc. Amer. Philos. Soc.*, v, 1851, p. 178.)

Unio multiplicatus 153

63.

51. LEA, ISAAC. Remarks on the Semibituminous and Transition Coal from Dauphin on the Susquehanna. <*Journ. Franklin Institute*, xxi, 1851, pp. 142–143.

64.

1851. LEA, ISAAC. [On the fossil bones of a Reptilian Quadruped from Upper Milford, Lehigh Co., Pa.] <*Proc. Acad. Nat. Sci.*, v, pp. 171–172. No. 8, March and April, 1851.

Communication made April 8, 1851. (See *Proc. Acad. Nat. Sci., Phila.*, v, 1851, p. 211.)

In this paper Mr. Lea proposed the specific name *Pennsylvanicus* for these bones, but deemed it advisable to postpone a generic one until a further examination shall prove the diagnosis, and then apply a descriptive one. The generic name *Clepsysaurus* was proposed by Mr. Lea for this animal May 20, 1851. See No. 67.

65.

1851. LEA, ISAAC. [On a communication from Prof. Agassiz to the Natural History Society of Boston relating to the soft parts of American fresh water Mollusks.] <*Proc. Amer. Philos. Soc.*, v, pp. 187–189, No. 46, Jan.–June, 1851.

Remarks made before the American Philosophical Society March 21, 1851. (See *Proc. Amer. Philos. Soc.*, v, 1851, p. 212.)

In this paper Mr. Lea calls the attention of the American Philosophical Society to several papers of his read before the Society and published in its Transactions, describing several of the important parts mentioned by Prof. Agassiz in his communication to the Boston Society of Natural History. See also No. 74.

66.

1851. LEA, ISAAC. [On the great size of certain Naïades from the neighborhood of Cincinnati, Ohio.] <*Proc. Amer. Philos. Soc.*, v, pp. 191–193, No. 46, Jan.–June, 1851.

Communication made April 4, 1851. No. 46, Jan.–June, 1851, of the Proceedings received by the Smithsonian Institution on or before July 16, 1851. (See *Proc. Amer. Philos. Soc.*, v. 1851, p. 212.)

The weights of the hard parts of the following species are given:

Unio multiplicatus.
Unio crassidens.
Unio crassus.
Margaritana complanata.
Unio pustulosus.
Unio undulatus.
Unio alatus.
Margaritana undulata.
Unio tuberculatus.
Unio verrucosus.
Unio lacrymosus.
Unio obliquus.
Unio rectus.
Unio rubiginosus.
Unio securis.

67.

1851. LEA, ISAAC. [The generic name *Clepsysaurus* applied to the fossil reptile discovered by Dr. J. Y. Schelley in Upper Milford, Pa.] <*Proc. Acad. Nat. Sci., Phila.*, v, p. 205, No. 9, May and June, 1851.

Remarks made before the Academy Natural Science, Phila., May 20, 1851. No. 9, May and June, 1851, of the Proceedings was received by the British Museum on or before October 7, 1851. (See *Proc. Acad. Nat. Sci., Phila*, v, 1851, p. 307.)

CLEPSYSAURUS, Lea, n. g 205
Clepsysaurus pennsylvanica, Lea 205

The specific name was proposed by Mr. Lea April 8, 1851. (See No. 64.)

68.

1851. LEA, ISAAC. [A new locality for Zircon, Reading, Pa.] <*Proc. Acad. Nat. Sci., Phila.*, v, p. 211, No. 9, May and June, 1851.

Verbal communication made before the Academy Natural Sciences, Phila., June 3, 1851. (See *Proc. Acad. Nat. Sci., Phila.*, v, 1851, p. 307.)

69.

1851. LEA, ISAAC. On the "Wave Theory" in regard to the Dynamics of Earthquakes. <*Proc. Acad. Nat. Sci., Phila.*, v, p. 261, No. 11, Sept. and Oct., 1851.

Verbal communication made before the Academy Natural Science, Phila., September 2, 1851. (See *Proc. Amer. Philos. Soc.*, v, 1851, p. 232.)

70.

1851. LEA, ISAAC. On the genus Acostæa of D'Orbigny. <*Proc. Acad. Nat. Sci., Phila.*, v, p. 277, No. 11, Sept. & Oct., 1851.

Reporters' notes on paper, by Mr. Lea, read before the Academy Natural Sciences, Phila., October 21, 1851. No. 11, Sept. & Oct., 1851, of the Proceedings was received by the Amer. Philos. Society on or before December 5, 1851. (See *Proc. Amer. Philos. Soc.*, v, 1851, p. 232.)

The full paper was published in the *Journal of the Academy*, vol. 11, 1850–1854, pp. 125–131. See No. 71.

Mulleria Ferrussacii, new name 277
Mulleria Guaduasana (D'Orbigny), Lea 277

71.

1851. LEA, ISAAC. On the Genus Acostæa of D'Orbigny, a Fresh Water Lamellibranchia. <*Journ. Acad. Nat. Sci., Phila.*, ii, new series, pp. 125–131.

Read before the Academy Natural Sciences, Phila., October 21, 1851.

(See *Proc. Amer. Philos. Soc.*, v, 1851, p. 232.)

"Mr. Lea expressed his convictions that this shell, now so well described by M. D'Orbigny, belonged to the same genus which Ferussac described in 1823 in the Mem. of the Soc. Nat. Hist., vol. 1, under the name of *Mulleria*, if it be not of the same species, a single specimen (adult) of which had then only been seen. Ferussac, considering the general resemblance of *Mulleria* to *Ostrea*, thought it ought to be put alongside of, if not in, the latter genus. Brongniart and Latreille thought it ought to go between *Spondylus* and *Arca*.

"Other authors had assigned it to various positions, while some doubted whether it was anything more than a malformation. The perfect specimen, in its junior and adult state, if it be Mulleria, now banish all difficulties. Mr. Lea thinks now, in placing *Mulleria* (*Acostæa*) in its true position at the head of the order *Monomyaria*, where it makes the link with Dimyaria, it forms an easy transition from the first to the second order. Thus retaining the trace of one while it passes so curiously into the other. *Nihil per saltum.*

"Mr. Lea, under the impression that D'Orbigny's *Acostæa Guaduasana* may prove to be a distinct species from the shell described by Ferussac under the generic name of *Mulleria*, while it may belong to the same genus, proposes to give the name of that distinguished zoologist to it. That of *Guaduasana* should be retained of course for D'Orbigny's species. The genus would then represent *Mulleria Ferussacii* and *Mulleria Guaduasana*."

Reporters' notes on this paper. See No. 70.

72.

1851. LEA, ISAAC. [Necrological Notice of Richard C. Taylor.] <*Proc. Acad. Nat. Sci., Phila.*, v, pp. 290–296, No. 11, Sept. & Oct., 1851. Separate, see No. 73.

Remarks made before the Academy Natural Sciences, Phila., October 28, 1851. (See *Proc. Amer. Philos. Soc.*, v, 1851, p. 232.) For separate, see No. 73.

73.

1851. LEA, ISAAC. Biographical Sketch of Richard Cowling Taylor. 8°. pp. 1–8, without title page or cover.

A reprint of No. 72. Received by the American Philosophical Society on or before December 5, 1851. (See *Proc. Amer. Philos. Soc.*, v, 1851, p. 232.)

74.

1851. LEA, ISAAC. [Correspondence between Mr. Lea and Prof. Agassiz, relating to the observations of Mr. Lea on the anatomy of the Naïades, laid before the Amer. Philosophical Society, March 21, 1851.] <*Proc. Amer. Philos. Soc.*, v, pp. 218–221, No. 47, July, 1851—February, 1852.

Read before the American Philosophical Society September 19, 1851. No. 47 of the Proceedings presented to the Society March 5, 1852. (See *Proc. Amer. Philos. Soc.*, vi, p. 253.) See, also, No. 65.

75.

1851. LEA, ISAAC. [Account of the Life of Richard C. Taylor.] <*Proc. Amer. Ph Soc.*, v, pp. 226–228, No. 47, July, 1851—February, 1852.

Communicated to the American Philosophical Society November 7, 1851. No. 47 o Proceedings presented to the Society March 5, 1852. (See *Proc. Amer. Philos. Soc.*, v, p.

76.

1852. LEA, ISAAC. A | Synopsis | of the | Family of Naïades. | by | Isaac Le [Title] | Third Edition, greatly enlarged and Improved. | Philadelphi Blanchard and Lea. | 1852. 4to. pp. i–xx, 17–88.

Presented to the American Philosophical Society on or before May 21, 1852. (See *Amer. Philos. Soc.*, v, p. 269.)

PREFACE.

"Few branches of Natural History have advanced with more rapidity than that w embraces the part of Malacology, which, in this volume, is presented in the form of a Sy sis. This edition is therefore very much enlarged, having quite double the quanti matter of the former one. The arrangement of the genera will be found to have been what changed. I have added an extensive alphabetical index of species and synon which will be found extremely useful for reference; and the number of additional sp will be found to be rather more than that which composed the whole in the previous edit

CONTENTS.

Corrigenda et Addenda
Synopsis of the Family Naïades ix
Division of the Family Naïades xvi
Genus Margaron
Subgenus Triquetra
Subgenus Prisodon
Subgenus Unio
Subgenus Margaritana
Subgenus Monocondylœa
Subgenus Dipsas
Subgenus Anodonta
Genus Platiris
Subgenus Iridina
Subgenus Spatha
Subgenus Mycetopus
Names given in Rafinesque's Monograph not identified
Geographical Distribution of the Species of the Family Naïades
Genus Margaron
Subgenus Triquetra
Subgenus Prisodon
Subgenus Unio
Subgenus Margaritana
Subgenus Monocondylœa
Subgenus Dipsas
Subgenus Anodonta
Genus Platiris
Subgenus Iridina
Subgenus Spatha
Subgenus Mycetopus
Index of Species
Alphabetical List of the Works referring to the Naïades

77.

1852. LEA, ISAAC. Description of a Fossil Saurian of the New Red Sandstone Fo tion of Pennsylvania; with some account of that Formation. <*Journ. A Nat. Sci., Phila.*, ii, New Series, pp. 185–202. Part III. Plates xvii to xix. separate see No. 79.

Read and presented for publication in the Journal of the Academy, May 11, 1852. copies printed for the author May, 1852. (See *Journ. Acad. Nat. Sci.*, ii, N. S., p. iv.)

CLEPSYSAURUS, Lea

Clepsysaurus pennsylvanicus, Lea

For first mention of name see *Proc. Acad. Nat. Sci., Phila.*, v, 1851, p. 73.

78.

1852. LEA, ISAAC. On some New Fossil Mollusca in the Carboniferous Slates of the Anthracite Seams of the Wilkesbarre Coal Formation. <*Journ. Acad. Nat. Sci., Phila.*, ii, New Series, Part III, pp. 203–206. Plate xx. For separate see No. 79.

Read before the Academy Natural Sciences, May 18, 1852. Extra copies printed for the author June, 1852. (See *Journ. Acad. Nat. Sci., Phila.*, ii, N. S., p. iv.)

Modiola Wyomingensis, Lea, n. s, pl. 20, fig. 1 a 205
Modiola minor, Lea, n. s., pl. 20, fig. 2 205
Posidonia ? clathrata, Lea, n. s., pl. 20, fig. 1 b 205
Posidonia ? perstriata, Lea, n. s., pl. 20, fig. 3 a 205
Posidonia ? distans, Lea, n. s., pl. 20, fig. 3 b 205
Palæoniscus ? Leidyiana, Lea, n. s., pl. 20, figs. 4, 5 206

79.

1852. LEA, ISAAC. Descriptions of New Species of the Family Unionidæ. <*Trans. Amer. Philos. Soc.*, x, pp. 253–294.

Read before the American Philosophical Society, March 5, 1852. Presented to the Academy of Natural Sciences, Phila., June 1, 1852. (See *Proc. Acad. Nat. Sci., Phila.*, vi, p. xxii. (With No. 81 and No. 82 forms No. 83.)

A list of the species without remarks or descriptions was printed in the *Proc. Amer. Philos. Soc.*, v, 1852, pp. 251–252.

"It is now some years since I presented to this society a continuation of my discoveries of new forms from the fresh waters and soil of the United States. Since that period, owing to the kindness of many valued friends, I have been enabled to get together a much larger number by far than could have been anticipated. These have come chiefly from localities hitherto little examined, and which have produced new species more or less interesting.

"I am aware that many persons doubt the existence of so extended a production of species, but this arises from the want of a knowledge of them, closely cultivated and analytically examined. An organic form, instituted by nature, must be recognized as distinct, for it will remain in a state of autonomy to the end of its term. It is the duty of the zoologist to bring to the investigation an eye practiced in discrimination, and a judgment experienced in analysis, as well as also an honest intention of purpose, that he may give the best and most securate results to his investigations."

Unio sordidis, Lea, n. s., pl. xii, fig. 1 254
Abbeville District, S. C., J. P. Barratt, M. D.
Unio Gibbesianus, Lea, n. s., pl. xii, fig. 2 254
Abbeville District, S. C., Louis R. Gibbes, M. D.
Unio perstriatus, Lea, n. s., pl. xii, fig. 3 255
Abbeville District, S. C., J. P. Barratt, M. D.
Unio Tuomeyi, Lea, n. s., pl. xiii, fig. 4 256
Abbeville District, S. C., J. P. Barratt, M. D.
Unio Barrattii, Lea, n. s., pl. xiii, fig. 5 256
Abbeville District, S. C., J. P. Barratt, M. D.
Unio decoratus, Lea, n. s., pl. xiii, fig. 6 257
Abbeville District, S. C., Dr. Barratt and Mr. Tuomey.
Unio rufusculus, Lea, n. s., pl. xiv, fig. 7 258
Abbeville District, S. C., J. P. Barratt, M. D.
Unio Whiteianus, Lea, n. s., pl. xiv, fig. 8 258
Near Savannah, Georgia, Rev. G. White.
Unio Lazarus, Lea, n. s., pl. xiv, fig. 9 259
Abbeville District, S. C., J. P. Barratt, M. D.
Unio merus, Lea, n. s., pl. xv, fig. 10 260
Abbeville District, S. C., J. P. Barratt, M. D.
Unio concavus, Lea, n. s., pl. xv, fig. 11 260
Abbeville District, S. C., J. P. Barratt, M. D.
Unio ineptus, Lea, n. s., pl. xv, fig. 12 261
Abbeville District, S. C., J. P. Barratt, M. D.
Unio luxeus, Lea, pl. xv, fig. 13 261
Abbeville District, S. C., J. P. Barratt, M. D.
Unio pygmæus, Lea, n. s., pl. xv, fig. 14 262
Abbeville District, S. C., J. P. Barratt, M. D.
Unio fraternus, Lea, n. s., pl. xvi, fig. 15 263
Columbus, Georgia, Dr. Boykin; Abbeville District, S. C., J. P. Barratt, M. D.

1852. LEA, ISAAC—Continued.

Anodonta Trautwiniana, Lea, n. s., pl. xxvi, fig. 48 287
Carthagena, South America, John C. Trautwine, Esq.

Anodonta Wheatleyi, Lea, n. s., pl. xxvi, fig. 49 287
Para, South America, Mr. C. M. Wheatley.

Anodonta Shaefferiana, Lea, n. s., pl. xxvi, fig. 50 288
Horn Lake Creek, Tenn., Mr. Shaeffer.

Anodonta Linnæana, Lea, n. s., pl. xxvii, fig. 51 289
Lake Concordia, Louisiana, Mr. C. M. Wheatley.

Anodonta oblita, Lea, n. s., pl. xxviii, fig. 52 290
Campbell County, East Tennessee, President Estabrook.

Anodonta virens, Lea, n. s., pl. xxviii, fig. 53 290
Red River, at Alexandria, Louisiana, J. Hale, M. D.

Anodonta tortilis, Lea, n. s., pl. xxviii, fig. 54 291
Carthagena, South America, J. C. Trautwine, Esq.

Anodonta Schröteriana, Lea, n. s., pl. xxix, fig. 55 292
Rio Negro, Brazil, Mr. C. M. Wheatley.

Anodonta Arkansensis, Lea, n. s., pl. xxix, fig. 56 293
Little Arkansas, J. L. Le Conte, M. D.

Systematic Index 294

80.

53. LEA, ISAAC. On a | Fossil Saurian | of the | New Red Sandstone Formation | of Pennsylvania, | with some | account of that formation. ¶ also: on some | New Fossil Molluscs, | in the | Carboniferous Slates | of the | Anthracite Seams of the Wilkesbarre Coal Formation, | by | Isaac Lea, | Member of the Am. Phil. Soc.; of the Acad. of Nat. Sciences of Philadelphia; of the Zool. Soc. of | London; of the Imperial Soc. of Moscow, &c. &c. | Philadelphia: | Merrihew & Thompson, Printers, No. 7 Carter's Alley. | 1852. 4to. pp. 1–28. plates xvii to xx.

Presented to the Academy Natural Sciences, Phila., June 1, 1853, and to Amer. Philos. Soc., June 18, 1853.

This consists of Nos. 77 and 78, with title page and repaging.

81.

2. LEA, ISAAC. Description of a New Genus (Basistoma) of the Family Melaniana, together with some New Species of American Melaniæ. <*Trans. Amer. Philos. Soc.*, x, New Series, pp, 295–302.

Read before the American Philosophical Society, March 5, 1852. This, with Nos. 79 and 82, forms No. 83. See No. 83.

The genus *Basistoma* is also characterized, and a list of the species, without remarks or descriptions, is given in the *Proc. Amer. Philos. Soc.*, v, 1852, p. 252. See No. 94.

BASISTOMA, Lea, n. g. 295
Characters also given in *Proc. Amer. Philos. Soc.*, v, 1852, p. 252.

Schizochilus proposed for *Schizostoma*, the later having been used for a fossil genus by M. Bronn (foot note) 295

Basistoma Edwardsii, Lea, n. s., pl. xxx, fig. 1 296
River Tocatinus, South America, Amory Edwards, Esq.

Melania perstriata, Lea, n. s., pl. xxx, fig. 2 296
Coosa River, Alabama, Prof. Brumby; Huntsville, Tenn., Mr. J. Clark; Tennessee, Prof. Troost.

Melania sculptilis, Lea, n. s., pl. xxx, fig. 3 297
Tennessee, Mr. J. Clark.

Melania Clarkii, Lea, n. s., pl. xxx, fig. 4 297
Duck Creek, Tenn., Mr. Joseph Clark.

Melania Brumbyi, Lea, n. s., pl. xxx, fig. 5 298
Coosa River, Alabama, Prof. Brumby; Huntsville, Alabama, Mr. J. Clark.

Melania oblita, Lea, n. s., pl. xxx, fig. 6 298
Tennessee?

Melania furva, Lea, n. s., pl. xxx, fig. 7 299
Branch of Coosa River, Alabama, Prof. Brumby.

Melania Sellersiana, Lea, n. s., pl. xxx, fig. 8 299
Cany Fork, Tennessee, Mr. Coleman Sellers.

Melania oppugnata, Lea n. s., pl. xxx, fig. 9 300
Alabama River, Mr. C. M. Wheatley.

1852. LEA, ISAAC—Continued.

Melania Saffordii, Lea, n. s., pl. xxx, fig. 10 300
Lebanon, Wilson County, Tennessee, Mr. James M. Safford.

Melania pinguis, Lea, n. s., pl. xxx, fig. 11 301
Lebanon, Wilson County, Tenn., Mr. J. M. Safford.

Melania gibbosa, Lea, n. s., pl. xxx. fig. 12 301
Scioto River, Ohio, Mr. C. M. Wheatley.

Systematic Index 302

82.

1852. LEA, ISAAC. Description of a New Species of Helix, from California, and a new Characteristic Form of certain American Colimaceæ. <*Trans. Amer. Philos. Soc. Phila.*, x, Part 3, 1852, pp. 303–305.

Read before the American Philosophical Society, March 5, 1852. With Nos. 79 and 81 forms No. 83. See No. 83.

Outline of paper given, *Proc. Amer. Philos. Soc.*, v, 1852, pp. 252–253.

Helix Lecontii, Lea, n. s., pl. xxx, fig. 13 303
St. Francisco, J. L. Le Conte, M. D.

Accessory Column in the Family Colimaceæ 304

"When recently examining very closely the structure of some of our *Helices*, I observed what had before escaped my attention, a pillar or an additional column, placed like a fulcrum (buttress) in the interior, against the wall of the ordinary column, at the distance of a fifth to a third of a revolution of the whorl from the aperture."

"I have detected the fulcrum in the following species, and as several of the species of Dr. Binney and Dr. Gould are unknown to me, I think it likely to be found in some of them:

Carocolla spinosa, Lea.
Carocolla Edgariana, Lea.
Helix hirsuta, Say.
Helix monodon, Racket.
Helix Leai, Ward.
Helix leporina, Gould.
Helix Lecontii, Lea.
Polygyra Troostiana, Lea.
Polygyra Dorfuilliana, Lea."

On the use of personal names for species in natural history 305

83.

1852. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descriptions of New Species in the Families Unionidæ, Colimacea | and Melaniana. | Read before the American Philosophical Society, and originally | published in its Transactions. | by | Isaac Lea, | [Title] | with numerous plates. | Vol. V. | Philadelphia: | Printed for the Author. 4°. pp. 62, with plates 12–30 of Vol. X of the Trans. Amer. Philos. Soc.

This consists of Nos. 79, 81, and 82, and was presented to the Academy Natural Sciences June 1, 1852. (See *Proc. Acad. Nat. Sci. Phila.*, vi, p. xxii.)

84.

1852. LEA, ISAAC. On the Fossil Foot-Marks in the Red Sandstones of Pottsville, Schuylkill County, Penna. <*Trans. Amer. Philos. Soc. Phila.*, x, Part 2, pp. 307–317, plates 31, 32, and 33.

For separate see No. 85.

Read before the American Philosophical Society, April 2, 1852. Ordered to be published in the Transactions of the Society, April 16, 1852. Part 2, vol. x of the Transactions laid before the Society June 18, 1852. (See *Proc. Amer. Philos. Soc.*, v, p. 275.)

Remarks on the opinions of Prof. H. D. Rogers and Prof. L. Agassiz on the character and age of these foot-prints 307–312

Prof. Agassiz, asserting his belief before the Amer. Assoc. Adv. Sci. that these were not made by any air-breathing animal, Mr. Lea still holds to his "own opinions, as expressed in a former communication, as to the fact of these '*foot-marks*' being impressed by a four-footed air-breathing animal, allied to the 'Saurians,' having four toes on the hind foot and five on the fore foot."

Remarks on foot prints that have been discovered analogous to those under discussion 312–314

An extended diagnosis of the foot prints of *Sauropus primævus*, plates xxxi and xxxii 314–316

Description of other organic remains in the same formation, pl. xxxiii 316–317

85.

1852. LEA, ISAAC. On the | Fossil Foot-Marks | in the | Red Sandstone of Pottsville, | Pennsylvania, | by | Isaac Lea, | Member of the Am. Phil. Soc.; of the Acad. of Nat. Sciences of Philada.; | of the Zool. Soc. of London; of the Imperial | Soc. of Moscow, &c. &c. | [from the Transactions of the American Philosophical Society, Vol. x.] | Philadelphia: | Printed for the Author. | 1852. 4to. Pp. 1–13, plates 31–33.

This is a separate of No. 84 and was received from the author by the Academy Natural Sciences, Phila., June 1, 1852. (See *Proc. Acad. Nat. Sci., Phila.*, v, p. xxii.)

86.

1852. LEA, ISAAC. [On a remarkably large specimen of *Dipsas plicatus*, Leach.] <*Proc. Acad. Nat. Sci. Phila.*, vi, p. 52.

Verbal communication made March 2, 1852.

87.

1852. LEA, ISAAC. [On the period of maturing and ejecting the young in the family Unionidæ.] <*Proc. Acad. Nat. Sci. Phila.*, vi, p. 54.

Verbal communication made March 23, 1852.

88.

1852. LEA, ISAAC. Description of a new species of Symphynote Unio. <*Proc. Acad. Nat. Sci.*, vi, pp. 54–55. No. 2, March and April, 1852.

Read before the Academy Natural Sciences, Phila., March 9, 1852, and printed with the Proceedings of March 30. See (*Proc. Amer. Philos. Soc.*, v, p. 271.)

Unio Cumingii, Lea, n. s 54

Northern part of China, H. Cuming.

Journ. Acad. Nat. Sci., iv, 1860, p. 240.

89.

1852. LEA, ISAAC. Definition of the term Species and remarks on the Classification of the Family Naïades. <*Proc. Acad. Nat. Sci. Phila.*, vi, pp. 57–58. No. 2, March and April, 1852.

Communication made to the Academy Natural Sciences, Phila., April 6, 1852. (See *Proc. Amer. Philos. Soc.*, v, p. 271.)

90.

1852. LEA, ISAAC. [Remarks on a stone slab containing supposed imprints of human feet.] <*Proc. Acad. Nat. Sci., Phila.*, vi, p. 106.

Verbal communication made June 1, 1852.

91.

1852. LEA, ISAAC. [On some shells from the drift near Philadelphia.] <*Proc. Acad. Nat. Sci., Phila.*, vi, p. 106.

Verbal communication made June 1, 1852.

92.

1852. LEA, ISAAC. Description of a new species of Eschara, from the Eocene of Alabama. <*Proc. Acad. Nat. Sci., Phila.*, vi, pp. 109–110, No. 3, June and July, 1852. 2 cuts.

Read before the Academy Natural Sciences, Phila., June 1, 1852, and printed with minutes of June 29, 1852 (See *Proc. Amer. Philos. Soc.*, v, p. 281.)

Eschara Clairbornensis, Lea, n. s 110

93.

1852. LEA, ISAAC. Descriptions of New Species of the Family Unionidæ. <*Proc. Amer. Philos. Soc.*, v, pp. 251–252.

Read before the American Philosophical Society March 5, 1852, and published in the *Trans. Amer. Philos. Soc.*, x, new series, pp. 253–294. See No. 80.

The portion printed in the Proceedings consists merely of a list of the species described, without descriptions or remarks.

94.

1853. LEA, ISAAC. Description of a New Genus (Basistoma) of the Family Melaniana, together with some New Species of American Melaniæ. <*Proc. Amer. Philos. Soc.*, v, p. 252. No. 48, February and December, 1852.

Read before the American Philosophical Society March 5, 1852, and published in the *Trans. Amer. Philos. Soc.*, x, pp. 275–302. See No. 81. No. 48 of the Proceedings presented to the meeting of the Society February 4, 1853. (See *Proc. Amer. Philos. Soc.*, v, p. 313.)

The characters of the genus Basistoma are given in this place; but, as the full article in the Transactions was published before No. 48 of the Proceedings, the date of the publication of the Proceedings amounts to little in determining priority of description. The rest of the article in the Proceedings consists of a list of the species without descriptions.

BASISTOMA, Lea..... 252

95.

1853. LEA, ISAAC. Description of a New Species of Helix, from California, and a new characteristic form of certain American Colimacea. <*Proc. Amer. Philos. Soc.*, v, pp. 252–253. No. 48, February and December, 1852.

Read before the American Philosophical Society March 5, 1852, and published in the Transactions of the Society, x, new series, pp. 303–305.

See No. 82. The portion published in the Proceedings consists only of an outline of the full paper.

96.

1853. LEA, ISAAC. Notice of the Mya nodulosa, Wood. <*Proc. Acad. Nat. Sci., Phila.*, vi, p. 368. No. 9, May & June, 1853.

Read before the Academy Natural Sciences June 14, 1853. (See *Proc. Amer. Philos. Soc.*, v, p. 339.)

"In the examination of the Molluscs of the Imperial Cabinet of Vienna, I observed a specimen of the family *Naiades*, which I immediately recognized to be *Mya nodulosa*, described and figured by Wood (General Conchology and Index Testaceorum), and which was placed by me among the nodulous *Uniones* in my Synopsis. * * * * * The inspection of the specimen, however, enabled me at once to place the species in its proper position in the system, the teeth, particularly the lateral ones, having equal and parallel striæ, as in the genus Prisodon, Schum.=*Castalia*, Lam. The cardinal and lateral teeth are both robust, and of the form of the ponderous subrotund *Uniones*, but the deeply-impressed striæ separate it from that genus and place it in *Prisodon*."

97.

1853. LEA, ISAAC. [On the *Castalia sulcata*, Krauss and other Naiades.] <*Proc. Acad. Nat. Sci., Phila.*, vi, pp. 376–377. No. 10, July and August, 1853.

Letter to Dr. Leidy, dated Langen Schwalback, Duchy of Nassau, June 21, 1853, and read before the Academy August 2, 1853. (See *Proc. Amer. Philos. Soc.*, v, p. 344.)

Unio Kraussii, Lea, new name.
Castalia sulcata, Krauss.
Dipsas plicatus, Leach.
Unio superbus, Lea.

98.

1853. LEA, ISAAC. [On the *Mulleria*, Ferussac; and Acostæa, D'Orbigny.] <*Proc. Acad. Nat. Sci., Phila.*, vi, p. 435. No. 12.

Verbal communication made November 22, 1853. (See *Proc. Amer. Philos. Soc.*, vi, p. 7.)

99.

1853. LEA, ISAAC. [On a specimen of Gneiss bored by Pholas dactylus.] <*Proc. Acad. Nat. Sci., Phila.*, vi, p. 438. No. 12.

Verbal communication made December 13, 1853. (See *Proc. Amer. Philos. Soc.*, vi, p. 7.)

100.

1854. LEA, ISAAC. [On *Acostæa Guaduasana*, D'Orbigny.] <*Proc. Acad. Nat. Sci., Phila.*, vii, pp. 1–2. No. 1, January and February, 1854.

Verbal communication made January 3, 1854. (See *Proc. Amer. Philos. Soc.*, vi, p. 20.)

101.

1854. LEA, ISAAC. Rectification of Mr. T. A. Conrad's "Synopsis of the Family of Naïades of North America," published in the "Proceedings of the Academy of Natural Sciences of Philadelphia, February, 1853." <*Proc. Acad. Nat. Sci., Phila.*, vii, pp. 236–249. No. 6, Nov. and Dec., 1854.

Read before the Academy Natural Sciences, Phila., February 7, 1854.

(See *Proc. Amer. Philos. Soc.*, vi, p. 83.)

Separate as follows:

Rectification | of | Mr. T. A. Conrad's | "Synopsis of the Family of Naïades of North America," | published in the | "Proceedings of the Academy of Natural Sciences | of Philadelphia, | February 1853," | by | Isaac Lea. | — | Philadelphia. | Merrihew and Thompson, Printers, | Merchant Street, above Fourth. | 1854. 12°. pp. 16. Pamphlet.

Received by the Academy Natural Sciences on or before February 6, 1855. (See *Proc. Acad. Nat. Sci., Phila.*, vii, p. xxii.)

"Finding in it numerous errors in regard to the dates of my memoirs and the synonymy of my species, I desire that the correction of part at least of these errors may reach the scientific public by the same channel."

"I do not mean to correct the synonymy of this Synopsis, but I trust to satisfy every one that it can be of no value whatever where the dates are so erroneously stated."

"He usually takes the date of the title of the *Volume* of the Transactions of the American Philosophical Society, where the species may have been described, while the volumes published by the Society, as they are almost universally by all scientific bodies, were really issued *in parts* at different times, and generally in three parts. Thus when part first of any volume was issued, the Society distributed copies immediately to their subscribers and to all the principal societies in Europe and in this country; and, when I have had in such part a memoir, I had two hundred and fifty copies printed for my own use, one hundred and fifty of which I at once distributed at home and abroad where I thought they might be useful to science. When part second of the same volume may have been printed the same process took place, and when part third was rea y it took the same course, with this addition, viz, a title-page for the *whole volume* was printed for the convenience of those who might choose to have their three parts bound into a volume, and this title bore the date of the last part. Thus most of these copies of my descriptions, with figures, may have been in the hands of the zoologists of Europe and America for two or three years prior to the date at which Mr. Conrad has stated them as being published. In addition, he usually pays no regard to the dates of my descriptions printed in the Proceedings of the American Philosophical Society or otherwise, prior to their subsequent issue in the Transactions. Thus on the 18th August, 1843, I read a number of descriptions before that society, and permission was granted to me to print them at once. The following day, August 19th, these descriptions were printed and circulated. Now Mr. Conrad in his synopsis dates these as published in 1846! three years after they were actually issued printed."

"The question as to fixing with precision the date of discovery of a new form, has been one of anxiety and doubt among men of science. For myself I have never felt satisfied that it was judicious to make any change in the long received rule of permanently fixing the date of publication to be that, when the paper was read before and deposited with the officers of a learned society, with a view to printing."

"Receiving as authority the dates issued by individuals in publications is exceedingly dangerous. There may be antedates, and these can rarely be detected. In the case of a deposit of a paper with a learned society, intended for publication, and a record being made of it at the time, there cannot be any probability by collusion of the officers to make a change."

1854. LEA, ISAAC—Continued.

"As much of Mr. Conrad's Synopsis involves the names and claims of Mr. R becomes necessary to say something in explanation of my having in my papers few of his names."

Here follow four or five pages, in which Mr. Lea, by quoting the opinions o chologists, clearly shows that the descriptions of Mr. Rafinesque's species are s that they are worthless in determining species.

"We come now to by far the most important part of Mr. Conrad's Synopsis

"In order to occupy as little space as possible, I will endeavor to tabulate To take up my species in the order in which they occur in his Synopsis and c seriatim, would require great space. I commence with my first memoir, in 1827, chronologically to 1852.

Unio lanceolatus, Lea.	Dated by Mr. Conrad,		1832	Published in Memoi and deposited with t Soc., Nov. 2, 1827, an Trans., vol. iii. p. 259. early in 1828.‡ Noti man's Jour., Oct., 1 Trans. cited for 1827.
" irroratus, Lea.*	"	"	†1852	

Unio occidens, Lea.	Dated by Mr. Conrad,		1832‡	Published in Memoi and deposited with th March 6th, 1829, an Trans., vol. iii, p. 401. in May or June, 18 ceipt of it, with e acknowledged in a Cincinnati, June 27th is noticed in Sillima vol. xvi, 1829.
" rubiginosus, Lea.	"	"	1832	
" heterodon, Lea.	"	"	1833	
" multiradiatus, Lea.	"	"	1832	
" securis, Lea.	"	"	1832	

Unio acutissimus, Lea.	Dated by Mr. Conrad, Aug.		1834	Published in Mem fore and deposited w P. S., May 7th, 1830, in Trans., vol. iv., tributed in the latter and acknowledged by ents as received in th long review of this, plement read May 1 peared in Silliman' Jan., Feb., and Mar will be observed that makes *three dates* fo described in this men of which is correct principle of the issu copies being the t This memoir and th supplement having plates and nearly fift colored, required a finish, hence the de reading the memoir a ing of it complete.
" asper, Lea.	"	"	1832	
" pustulosus, Lea.	"	"	1832	
" obesus, Lea.	"	"	1832	
" castaneus, Lea.	"	"	1832	
" varicosus, Lea.	"	"	1832	
" Congaræus, Lea.	"	"	1832	
" decisus, Lea.	"	"	1832	
" glans, Lea.	"	"	1832	
" fabalis, Lea.	"	"	1832	
" lens, Lea.	"	"	1832	
" cuprinus, Lea.	"	"	1834	
" pustulatus, Lea.	"	"	1832	
" ebenus, Lea.	"	"	1832	
" stapes, Lea.	"	"	1832	
" trapezoides, Lea.	"	"	1838	

* The four other species of this memoir are given by Mr. Conrad without any date.

† This may be a typographical error and intended to be 1832, the same as *lanceolatus*, abov Mr. Conrad the benefit of this, it will still be found that he has dated these two species *fi* they were read to the Society, *four years* after they were printed and issued, and *two ye* date of the title-page of the whole volume.

‡ A correspondent in Cincinnati, under date of April 25th, 1828, acknowledges the re paper, and comments on the descriptions and the plates, and particularly the anatomica had received impressions of the plates in the previous December.

1834. LEA, ISAAC—Continued.

Unio angulatus, Lea. Dated by Mr. Conrad,		1832
" subovatus, Lea. " "		1832
" arcæformis, Lea. " "		1832
" pileus, Lea. " "		1832
" trigonus, Lea. " "		1832
" subrotundus, Lea. " "		1832

Published in Memoir (supplement) read before and deposited with the Am. Phil. Soc., May 20th, 1831, and printed in Trans., vol. iv., p. 105. This supplement was issued with the memoir. Therefore all these dates of Mr. Conrad's are one year after the memoir was distributed.

Unio globosus, Lea. Dated by Mr. Conrad,		1834
" capæformis, Lea. " "		1834
" Haysianus, Lea. " "		1834
" Ravenelianus, Lea. " "		Aug. 1834
" Schoolcraftensis, Lea. " "		" 1834
" geometricus, Lea. " "		1834
Anodonta plana, Lea. " "		Aug. 1834
" incerta, Lea. " "		1834

Published in Memoir read before and deposited with the Am. Phil. Soc., March 16th, 1832, and printed in Trans., vol. v., p. 23. I was absent most of 1832 in Europe, and the large number of plates (19) with figures of 86 species, in this and the two following supplements, all colored, required much time, and it was not until some time in Aug. or Sept., 1834, that the whole was finished and issued printed.

Unio Conradicus, Lea. Dated by Mr. Conrad,		1834
" Cooperianus, Lea. " "		1834
" dromas, Lea. " "		1834
" perdix, Lea. " "		1834
" pictus, Lea. " "		1834
" Sowerbyanus, Lea. " "		1834
" Troostensis, Lea. " "		1834

Supplement read before and deposited with the Am. Phil. Soc., March 15, 1833, and printed in Trans., vol. v., p. 59. The same observations apply as to the preceding.

Unio fulvus, Lea. Dated by Mr. Conrad,		1834
" Shepardianus, Lea. " "		1834
" confertus, Lea. " "		Aug. 1834
" modioliformis, Lea. " "		1834

Second supplement read before and deposited with the Am. Phil. Soc., Feb. 7th, 1834, and printed in Trans., vol. v., p. 95. The same observations apply as to the preceding.

Unio arctior, Lea. Dated by Mr. Conrad,		1838
" coccineus, Lea. " "		1838
" Fisherianus, Lea. " "		1838
" Hydianus, Lea. " "		1838
" jejunus, Lea. " "		1838
" interruptus, Lea. " "		1838
" turgidus, Lea. " "		*1837
" venustus, Lea. " "		1838

Published in Memoir read before and deposited with the Am. Phil. Soc., Dec. 19th, 1834, and printed in Trans., vol. vi., p. 1. All these are inserted in the first edition of my Synopsis, issued in 1836, probably in Dec.

Unio Barnesianus, Lea. Dated by Mr. Conrad,		1838
" Cumberlandianus, Lea. " "		1838
" folliculatus, Lea. " "		1838
" glaber, Lea. " "		1838
" Jayensis, Lea. " "		1838
" Lecontianus, Lea. " "		1838
" Muhlfeldianus, Lea. " "		1838
" notatus, Lea. " "		1838
" pumilis, Lea. " "		1838
" Medellinus, Lea. " "		1838
" Roanokensis, Lea. " "		1838
" simus, Lea. " "		1838
" Hopetonensis, Lea. " "		1838
" Vannxemensis, Lea. " "		1838
" Zieglerianus, Lea. " "		1838
Anodonta Wardiana, Lea. " "		1838

Published in Memoir read before and deposited with the Amer. Phil. Soc., Feb. 5th, 1836, and printed in Trans., vol. vi., p. 23. All these are inserted in the first edition of my Synopsis, issued in 1836, probably in Dec.

*I cannot understand why Mr. Conrad dates this one year prior to the other species in the same memoir. In his Synopsis he makes it a synonym to *Mortoni* Con., which he described in No. 1 of his Monography, Dec. 1835.

1854. LEA, ISAAC—Continued.

Unio pliciferus, Lea. Dated by Mr. Conrad,	1838	Published in Memoir read before and deposited with the Amer. Phil. Soc., July 15th, 1836, and printed in Trans., vol. vi. Issued in Synopsis, 1836.
Margaritana arcula, Lea. Dated by Mr. Conrad,	1838	Published in Memoir read before and deposited with the Amer. Phil. Soc., Aug. 19th, 1836, and printed in Trans., vol. vi. Issued in Synopsis, 1836.
Unio discus, Lea. Dated by Mr. Conrad,	1838	Published in Memoir read before and deposited with the Amer. Phil. Soc., Nov. 4th, 1836, and printed in Trans., vol. vi. Issued in Synopsis, 1836.
" Dorfeuillianus, Lea. Dated by Mr. Conrad,	1838	
" Menkeanus, Lea. " "	1838	
Unio Rangianus, Lea. Dated by Mr. Conrad,	1838	Published in Memoir read before and deposited with the Amer. Phil. Soc., July 21st, 1837, and printed in Trans., vol. vi. Issued in Synopsis, 1836.
Unio amœnus, Lea. Dated by Mr. Conrad,	1841	Published in Memoir read before and deposited with the Am. Phil. Soc., Oct. 2d, 1840. Oct. 16th ordered to be printed. Issued in the Proceedings of that month, (No. 13, p. 285), which was laid on the table by the Reporter, Nov. 6th, 1840. Printed in the Trans., vol. viii, p. 191.
" biangulatus, Lea. " "	1841	
" Bournianus, Lea. " "	1841	
" Boydianus, Lea. " "	1841	
" Cincinnatiensis, Lea. " "	1841	
" cuneolus, Lea. " "	1842	
" dactylus, Lea. " "	1841	
" dollabelloides, Lea. " "	1842	
" Edgarianus, Lea. " "	1841	
" exiguus, Lea. " "	1842	
" Geddingsianus, Lea. " "	1841	
" Holstonensis, Lea. " "	1841	
" lenior, Lea. " "	1841	
" Lesueurianus, Lea. " "	1842	
" lineatus, Lea. " "	1841	
" incrassatus, Lea. " "	1842	
" plenus, Lea. " "	1842	
" striatus, Lea. " "	1841	
" strigosis, Lea. " "	1841	
" Tennesseensis, Lea. " "	1842	
" tener, Lea. " "	1842	
" tortivus, Lea. " "	1842	
" tuberosus, Lea. " "	*1842	
Unio Brumbyanus,† Lea. Dated by Mr. Conrad,	1841	Published in Memoir read before and deposited with the Am. Phil. Soc., June 18th, 1841. Issued in Proceedings, No. 19, for October, 1841. These dates of Mr. Conrad's are therefore correct.
" regularis, Lea. " "	1841	
" mœstus, Lea. " "	1841	
" sparsus, Lea. " "	1841	
" argenteus, Lea. " "	1841	

* It will be observed that Mr. Conrad continues the singular error of frequently dating my species of the *same memoir* in different years, while some of them in the same memoir he inserts without a date, viz.: *Stonensis*, *subangulatus*, *oberus*, &c.

† At page 245 of Mr. Conrad's Synopsis in "Proceedings," this is given as a species; at page 250 it is made a synonym to *glans* Lea.

1854. LEA, ISAAC—Continued.

Unio amygdalus, Lea.	Dated by Mr. Conrad,		1846
" **Buckleyi, Lea.**	"	"	1846
" **Buddianus, Lea.**	"	"	1846
" **fuscatus, Lea.**	"	"	1846
" **minor, Lea.**	"	"	1846
" **Monroensis, Lea.**	"	"	1841
" **neglectus, Lea.**	"	"	1846

Published in Memoir read before and deposited with the Amer. Phil. Soc., Aug. 18th, 1843. Permission given by the Society to print the descriptions. They were printed and issued the following day, Aug. 19th, 1843. Receipt of these printed descriptions acknowledged by the Society Sept. 15th, 1843. Therefore six of these are dated by Mr. Conrad *three years* after they were printed and issued!!

Anodonta tetragona, Lea. Dated by Mr. Conrad, 1846

Published in Memoir read before and deposited with the Amer. Phil. Soc., May 2, 1845. Printed descriptions issued in the Proceedings of that month, No. 33, p. 165, issued Aug., 1845. Generally the new species of this memoir are dated correctly (in 1845) by Mr. Conrad. The *tetragona* is one year wrong, and *M. minor* has no date.

"In my last Memoir read before and deposited with the American Philosophical Society, March 5th, 1852, there are over fifty descriptions of new species. Two of these Mr. Conrad has omitted, viz.: *U. Oregonensis* Lea, and *U. succissus* Lea. Twelve he inserts without date; the remainder are dated correctly—1852.

"This finishes the corrections of the numerous *errors of date* in Mr. Conrad's Synopsis, as regards the long series of my memoirs in the Trans. Am. Phil. Soc. It will be seen by the above tables of corrections that he has, under his own rule of the time of issuing them printed, erroneously dated *about ninety of my species*. I do not pretend in this rectification to correct the *synonymy* of the Synopsis, as I have stated before. It would require too much space and time. Those interested in the subject must judge between the two synopses."

102.

1855. LEA, ISAAC. [Exhibition of the tanned skin of the Walrus used for polishing cutlery.] <*Proc. Acad. Nat. Sci., Phila.*, vii, p. 265.

Exhibited February 20, 1855.

103.

1855. LEA, ISAAC. Description of a new Mollusk from the Red Sandstone near Pottsville, Pa. <*Proc. Acad. Nat. Sci., Phila.*, vii, pp. 340–341. No. 9, May and June, 1855, with pl. iv. For separate see No. 104.

Read before the Academy Natural Sciences, Phila., May 22, 1855. (See *Proc. Amer. Philos. Soc.*, vi, p. 135.)

Cypricardia Leidyi, Lea, n. s 341

104.

1855. LEA, ISAAC. Description | of a | New Mollusk | from | The Red Sandstone, near Pottsville, Pa. | [Read before the Academy of Natural Sciences, May 22, 1855.] | By | Isaac Lea. | — | Philadelphia, | Merrihew and Thompson, Printers, | Merchant Street, above Fourth. | 1855. This is a separate of No. 103.

Received by the Academy Natural Sciences, Phila., on or before September 4, 1855. (See *Proc. Acad. Nat. Sci., Phila.*, vii, p. xxxiv.)

105.

1856. LEA, ISAAC. [Notes on Auroras.] <*Proc. Amer. Philos. Soc.*, vi, pp. 162–163. No. 54, May–Dec., 1855.

Read before the American Philosophical Society December 7, 1855. (See *Proc. Amer. Philos. Soc.*, vi, p. 173.)

106.

1856. LEA, ISAAC. On the New Red Sandstone Formation of Pennsylvania. <*Proc. Acad. Nat. Sci., Phila.*, viii, pp. 77–78. No. 2, March–April, 1856.

Notes on a paper bearing the above title intended for publication in the Journal of the Academy (see No. 111), and presented to the Academy April 15, 1856. This forms part of No. 111, which was presented to the Library of the Academy June 17, 1856. (See *Proc. Acad. Nat. Sci.*, viii, p. xiii.)

Centemodon sulcatus, Lea, n. s. ..... 87.

107.

1856. LEA, ISAAC. Description of a New Sub-Genus of Naïades. <*Proc. Acad. Nat. Sci., Phila.*, viii, p. 79. No. 2, March and April, 1856.

Read before the Academy Natural Sciences, Phila., April 1, 1856. (See *Proc. Acad. Nat. Sci.*, viii, p. xiii.)

Subgenus PLAGIODON, Lea, n. s. g. 79

Journ. Acad. Nat. Sci., iii, p. 317.

Plagiodon isocardiodes, Lea, n. s. 79

Rio Plata, M. E. Verreau, Paris.

Journ. Acad. Nat. Sci., iii, p. 318, as *P. isocardioides*.

108.

1856. LEA, ISAAC. Description of a New Species of Triquetra, Klein (Hyria, Lamarck). <*Proc. Acad. Nat. Sci., Phila.*, viii, p. 79. No. 2, March and April, 1856.

Read before the Academy Natural Sciences, Phila., April 1, 1856. (See *Proc. Acad. Nat. Sci., Phila.*, viii, p. xiii.)

Triquetra lanceolata, Lea, n. s. 79

China, ? Mr. Asa Fitch.

Journ. Acad. Nat. Sci., Phila., iii, p. 319, as *Triquetra contorta*.

109.

1856. LEA, ISAAC. Description of New Fresh-water Shells from California. <*Proc. Acad. Nat. Sci., Phila.*, viii, pp. 80–81. No. 2, March and April, 1856.

Read before the Academy Natural Sciences, Phila., April 1, 1856. (*Proc. Acad. Nat. Sci., Phila.*, viii, p. xiii.)

POMPHOLYX, Lea, n. g. 80

Journ. Acad. Nat. Sci., vi, 1866, p. 156.

Pompholyx effusa, Lea, n. s. 80

Sacramento River, California, Dr. Trask.

Journ. Acad. Nat. Sci., vi, 1866, p. 156.

Melania Shastaensis, Lea, n. s. 80

Shasta and Scott Rivers, California, Dr. Trask.

Journ. Acad. Nat. Sci., v, 1863, p. 337, as *Goniobasis Shastaensis*.

Melania nigrina, Lea, n. s. 80

Clear Creek, Shasta County, California, Dr. Trask.

Journ. Acad. Nat. Sci., v, 1863, p. 302.

Physa triticea, Lea, n. s. 80

Shasta County, California, Dr. Trask.

Journ. Acad. Nat. Sci., vi, 1866, p. 176.

Planorbis Traskii, Lea, n. s. 80

Kern Lake, Tulare County, California, Dr. Trask.

Journ. Acad. Nat. Sci., vi, 1866, p. 157.

Lymnæa proxima, Lea, n. s. 80

Arroya San Antonio, California, Dr. Trask.

Journ. Acad. Nat. Sci., vi, 1866, p. 160.

1856. LEA, ISAAC—Continued.

Ancylus patelloides, Lea, n. s 80
Sacramento River, California, Dr. Trask.
Journ. Acad. Nat. Sci., vi, 1866, p. 185.

Species already described:
Margaritana margaritifera, Lea.
Anodonta Wahlamatensis, Lea.
Anodonta angulata, Lea.
Helix Oregonensis, Lea.
Helix Nicklíniana, Lea.
Helix Californiensis, Lea.
Lymnæa exigua, Lea.
Lymnæa pallida, Adams.
Physa heterostropha, Say.
Melania occata, Hinds.
Melania semivalis (*Paludina*, Hinds).
Planorbis trivolis, Say.
Planorbis ammon, Gould.

110.

1856. LEA, ISAAC. Description of Twenty-five New Species of Exotic Uniones. <*Proc. Acad. Nat. Sci., Phila.*, viii, p. 92–95. No. 2, March and April, 1856.

Read before the Academy Natural Sciences, Phila., April 15, 1856. (See *Proc. Acad. Nat. Sci., Phila.*, viii, p. xiii.)

Unio Hainesianus, Lea, n. s 92
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 289.

Unio Myersianus, Lea, n. s 92
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 290.

Unio Houseí, Lea, n. s 92
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 291.

Unio gravidus, Lea, n. s 93
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 292.

Unio inornatus, Lea, n. s 93
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 293.

Unio lutens, Lea, n. s 93
Newville Burmah, Mrs. Vinton.
Journ. Acad. Nat. Sci., iii, 1858, p. 291, as *Unio luteus*.

Unio eximius, Lea, n. s 93
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 294.

Unio tumidulus, Lea, n. s 93
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 295.

Unio rusticus, Lea, n. s 93
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 294.

Unio sagittarius, Lea, n. s 93
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 298.

Unio substriatus, Lea, n. s 93
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 300, as *Unio subtriatus*.

Unio scobinatus, Lea, n. s 93
Siam, T. R. Ingalls, M. D., S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 299.

Unio humilis, Lea, n. s 93
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 296.

1856. LEA, ISAAC—Continued.

Unio phaselus, Lea, n. s 94
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 297.

Unio Verreauianus, Lea, n. s 94
Cape of Good Hope, M. E. Verreau.
Journ. Acad. Nat. Sci., iii, 1858, p. 301.

Unio Africanus, Lea, n. s 94
Cape of Good Hope, M. E. Verreau.
Journ. Acad. Nat. Sci., iii, 1858, p. 300.

Unio Shurtleffianus, Lea, n. s 94
Sina River, India, Major Le Conte; Ahmednugger, India, S. Shurtleff, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 302.

Unio effulgens, Lea, n. s 94
Brazil, B. W. Budd, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 303.

Unio Dünkerianus, Lea, n. s 94
River Macacoú, Rio de Janeiro, Brazil, Prof. Dünker; New Grenada, M. E. Verreau.
Journ. Acad. Nat. Sci., iii, 1858, p. 305.

Unio Shuttleworthii, Lea, n. s 94
Australia, R. J. Shuttleworth, Esq., Berne, Switzerland.
Journ. Acad. Nat. Sci., iii, 1858, p. 304.

Unio nucleus, Lea, n. s 94
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 306.

Unio Wheatleyanus, Lea, n. s 94
Rio Plata, M. A. D'Orbigny; Rio Negro, C. M. Wheatley, Esq.
Journ. Acad. Nat. Sci., iii, 1858, p. 308.

Unio Brownii, Lea, n. s 95
Mocha, ? Asia, Capt. Geo. Brown.
Journ. Acad. Nat. Sci., iii, 1858, p. 307.

Unio suavidicus, Lea, n. s 95
River Amazon, M. E. Verreau, Paris.
Journ. Acad. Nat. Sci., iii, 1858, p. 309.

Unio umbrosus, Lea, n. s 95
Medellin River, Mexico, M. Burrough, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 311.

111.

1856. LEA, ISAAC. On the | New Red Sandstone Formation | of Pennsylvania. | — | Description | of a | New Sub-Genus of Naïades. | Description | of a | New Species of Triquetra. | Description | of | New Fresh Water Shells | from California. | Description | of | Twenty-five New Species of Exotic Uniones, | by | Isaac Lea, LL. D., &c., &c. | — | Philadelphia: | Merrihew & Thompson, Printers, | Lodge street, north side Pennsylvania Bank. | 1856. 8°. pp. 1–8.

Extracts from the Proceedings of the Academy Natural Sciences, Phila., and consists of Nos. 106, 107, 108, 109, and 110 of this Catalogue.

Presented to the Library of the Academy on or before June 17, 1856. (See *Proc. Acad. Nat. Sci., Phila.*, viii, p. xiii.)

112.

1856. LEA, ISAAC. Description of four New Species of Exotic Uniones. < *Proc. Acad. Nat. Sci.*, viii, p. 103. No. 3, May and June, 1856.

Read before the Academy May 13, 1856. No. 3 of the Proceedings was received by the American Philosophical Society on or before August 15, 1856. (See *Proc. Amer. Philos. Soc.*, p. 207.) This forms part of No. 126.

Unio Coloradoensis, Lea, n. s 102
Rio Colorado, Texas, B. W. Budd, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 314.

Unio Nuttallianus, Lea, n. s 102
India, Prof. Thomas Nuttall.
Journ. Acad. Nat. Sci., iii, 1858, p. 310.

1856. LEA, ISAAC—Continued.

Unio Cambodiensis, Lea, n. s 103
Takrong River at Korat, Cambodia, S. R. House, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 313.

Unio Newcombianus, Lea, n. s 103
Lake Nicaragua, W. Newcomb, M. D.
Journ. Acad. Nat. Sci., iii, 1858, p. 312.

113.

1856. LEA, ISAAC. Description of Thirteen New Species of Exotic Peristomata. <*Proc. Acad. Nat. Sci., Phila.*, viii, pp. 109–111. No. 3, May and June, 1856.

Read before the Academy June 3, 1856. (See *Proc. Amer. Philos. Soc.*, vi, p. 207.) This forms part of No. 126.

Paludina Hainesiana, Lea, n. s 109
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 115.

Paludina umbilicata, Lea, n. s 109
Takrong River, Siam, W. A. Haines.
Journ. Acad. Nat. Sci., vi, 1866, p. 117.

Paludina Chinensis, Lea, n. s 110
China, W. A. Haines.
Journ. Acad. Nat. Sci., vi, 1866, p. 115, as *Paludina orientalis*.

Paludina Swainsoniana, Lea, n. s 110
Siam, T. R. Ingalls, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 116.

Paludina Ingallsiana, Lea, n. s 110
Siam, T. R. Ingalls, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 117.

Bithinia Siamensis, Lea, n. s 110
Takrong River, Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 118.

Bithinia globula, Lea, n. s 110
India, W. A. Haines.
Journ. Acad. Nat. Sci., vi, 1866, p. 119.

Paludomus maculata, Lea, n. s 110
Ahmednugger, India, S. Shurtleff, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 118, as *Rivulina maculata*.

Ampullaria aurostoma, Lea, n. s 110
Carthagena, Col. Totten, J. C. Troutwine, Esq.
Journ. Acad. Nat. Sci., vi, 1866, p. 114.

Ampullaria tubæformis, Lea, n. s 110
Hab. ——? M. Burrough, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 114.

Ampullaria gracilis, Lea, n. s 110
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 113.

Ampullaria turbinis, Lea, n. s 110
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 113.

Assiminea carinata, Lea, n. s 111
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 119.

114.

1856. LEA, ISAAC. Description of Fifteen new species of Exotic Melaniana. <*Proc. Acad. Nat. Sci., Phila.*, viii, pp. 144–145. No. 4, July and August, 1856.

Read before the Academy of Natural Sciences July 8, 1856. (See *Proc. Amer. Philos. Soc.*, vi, p. 212.) This forms part of No. 126.

Melania Verreauxiana, Lea, n. s 144
Sandwich Islands, M. E. Verreau, Paris.
Journ. Acad. Nat. Sci., vi, 1866, p. 127, as *M. Verreauxiana*.

1856. LEA, ISAAC—Continued.

Melania fraterna, Lea, n. s 144
Hab. ——.
Journ. Acad. Nat. Sci., vi, 1866, p. 128.

Melania Hainesiana, Lea, n. s 144
India, W. A. Haines, New York.
Journ. Acad. Nat. Sci., vi, 1866, p. 122.

Melania Houssi, Lea, n. s 144
Korat, Takrong River, Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 125.

Melania Ningpoensis, Lea, n. s 144
Ningpo, China, S. R. House, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 124.

Melania Myersiana, Lea, n. s 145
Feejee Islands, S. R. House, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 124.

Melania bullata, Lea, n. s 145
Brazil, W. A. Haines.
Journ. Acad. Nat. Sci., vi, 1866, p. 129.

Melania lyræformis, Lea, n. s 145
Manila, W. Newcomb, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 126.

Melania affinis, Lea, n. s 145
Manila, W. Newcomb, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 125.

Melania australis, Lea, n. s 145
Manila, W. Newcomb, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 126, as *Melania Manillaensis*.

Melania Newcombii, Lea, n. s 145
Oahu, Sandwich Islands, W. Newcomb, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 122.

Melania Mauiensis, Lea, n. s 145
Maui, Sandwich Islands, W. Newcomb, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 122.

Melania Boninensis, Lea, n. s 145
Bonin Islands, M. Burrough, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 121.

Melania rubida, Lea, n. s 145
Mexico, Hon. J. R. Poinset.
Journ. Acad. Nat. Sci., vi, 1866, p. 121.

Pachychilus parvum, Lea, n. s 145
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 120.

115.

1856. LEA, ISAAC. Description of the Byssus in the genus Unio. <*Proc. Acad. Nat. Sci., Phila.*, viii, pp. 213–214. No. 5, September and October, 1856.

Read before the Academy of Natural Sciences September 23, 1856. (See *Proc. Amer. Philos. Soc.*, vi, p. 229.) This forms part of No. 126.

116.

1856. LEA, ISAAC. Description of eleven New Species of Uniones, from Georgia. <*Proc. Acad. Nat. Sci., Phila.*, viii, pp. 262–263. No. 6, November and December, 1856.

Read before the Academy of Natural Sciences November 4, 1856. This forms part of No. 126.

Unio Elliottii, Lea, n. s 262
Othcalooga Creek, Gordon Co., Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 54.

Unio gracilior, Lea, n. s 262
Buckhead Creek, Burke Co., Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 56, as *U. gracillior*.

Unio pullatis, Lea, n. s 262
Creeks near Columbus, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 57, as *U. pullatus*.

1856. LEA, ISAAC—Continued.

Unio favosus, Lea, n. s 262
Othcalooga Creek, Gordon Co., Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 58.

Unio rutilans, Lea, n. s 262
Othcalooga Creek, Gordon Co., Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 59.

Unio errans, Lea, n. s 262
Tobesaufkie Creek, near Macon, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 60.

Unio vicinus, Lea, n. s 262
Swift Creek, near Macon, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 61.

Unio rubellipsis, Lea, n. s 262
Creeks near Columbus, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1860, p. 62.

Unio geminus, Lea, n. s 262
Buckhead Creek, Burke Co., Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1860, p. 63.

Unio rostraeformis, Lea, n. s 262
Swift Creek, near Macon, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1860, p. 64, as *U. rostriformis*.

Unio Blandianus, Lea, n. s 263
Othcalooga Creek, Gordon Co., Georgia, Bishop Elliott.
Proc. Acad. Nat. Sci., ix, 1857, p. 31, and *Journ. Acad. Nat. Sci.*, iv, 1860, p. 65.

117.

1856. LEA, ISAAC. [Communication on *Triquetra lanceolata*, Lea, with change of name to *Triquetra contorta*.] <*Proc. Acad. Nat. Sci., Phila.*, viii, pp. 300–301. No. 6, November and December, 1856.

Remarks made before the Academy of Natural Sciences, December 16, 1856. This forms part of No. 126.

118.

1857. LEA, ISAAC. [Remarks on the visual organs of certain species of the genus Unio.] <*Proc. Acad. Nat. Sci., Phila.*, ix, pp. 17–18. February, 1857.

Remarks made before the Academy of Natural Sciences, February 3, 1857. (See *Proc. Acad. Nat. Sci., Phila.*, ix, p. v.) This forms part of No. 126.

119.

1857. LEA, ISAAC. Description of Thirteen New Species of Uniones, from Georgia. <*Proc. Acad. Nat. Sci., Phila.*, ix, pp. 31–32. February, 1857.

Read before the Academy of Natural Sciences, February 17, 1857. (See *Proc. Acad. Nat. Sci., Phila.*, ix, p. v.) This forms part of No. 126.

Unio Blandianus, Lea, n. s 31
Othcalooga Creek, Gordon Co., Georgia, Bishop Elliott.
Proc. Acad. Nat. Sci., viii, 1856, p. 263, and *Journ. Acad. Nat. Sci.*, iv, 1858, p. 65.

Unio concestator, Lea, n. s 31
Creeks near Columbus, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 66.

Unio extensus, Lea, n. s 31
Dry Creek near Columbus, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 67.

Unio pyriformis, Lea, n. s 31
Near Columbus, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 69.

Unio Columbensis, Lea, n. s 31
Creek near Columbus, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 75.

Unio fallax, Lea, n. s 32
Streams near Columbus, Georgia, Bishop Elliott; and French Broad River, Tenn., Mr. Joseph Clark.
Journ. Acad. Nat. Sci., iv, 1858, p. 79.

1857. LEA, ISAAC—Continued.

Unio intercedens, Lea, n. s 82
Streams near Columbus, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 77.

Unio excavatus, Lea, n. s 82
Othcalooga Creek, Gordon Co., Georgia, Bishop Elliott; and Etowah, Georgia, Rev. Geo. White; Alabama River, Claiborne, Alabama, Judge Tait.
Journ. Acad. Nat. Sci., iv, 1858, p. 71.

Unio radians, Lea, n. s 82
Othcalooga Creek, Gordon Co., Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1859, p. 201.

Unio rubellinus, Lea, n. s 82
Othcalooga Creek, Gordon Co., Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 70.

Unio umbrosus, Lea, n. s 82
Othcalooga Creek, Gordon Co., Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 72, as *U. umbrans*.

Unio apicinus, Lea, n. s 82
Othcalooga Creek, Gordon Co., Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 76.

Unio Othcaloogensis, Lea, n. s 82
Othcalooga Creek, Gordon Co., Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 74.

120.

1857. LEA, ISAAC. Description of Six New Species of Uniones from Alabama. <*Proc. Acad. Nat. Sci., Phila.*, ix, p. 83. March, 1857.

Read before the Academy of Natural Sciences, March 24, 1857. (See *Proc. Acad. Nat. Sci., Phila.*, ix, p. vi.) This forms part of No. 126.

Unio propinquus, Lea, n. s 83
Florence, Alabama, Rev. G. White, and Tuscumbia, Alabama, L. B. Thornton, Esq.
Journ Acad. Nat. Sci., v, 1862, p. 63.

Unio Florentinus, Lea, n. s 83
Florence, Alabama, Rev. G. White; Cumberland River, Tennessee, Drs. Troost and Edgar, and T. C. Downie, Esq., St. Simon's Island.
Journ. Acad. Nat. Sci., v, 1862, p. 64.

Unio biemarginatus, Lea, n. s 83
Florence, Alabama, Rev. G. White.
Journ. Acad. Nat. Sci., vi, 1866, p. 47.

Unio mundus, Lea, n. s 83
Tuscumbia, Alabama, L. B. Thornton, Esq.
Journ. Acad. Nat. Sci., vi, 1866, p. 40.

Unio Thorntonii, Lea, n. s 83
Tuscumbia, Alabama, L. B. Thornton, Esq.
Journ. Acad. Nat. Sci., vi, 1866, p. 38.

Unio Mooresianus, Lea, n. s 83
Tuscumbia, Alabama, H. Moores.
Journ. Acad. Nat. Sci., vi, 1866, p. 39.

121.

1857. LEA, ISAAC. Description of Eight New Species of Naïades from various parts of the United States. <*Proc. Acad. Nat. Sci., Phila.*, ix, p. 84. March, 1857.

Read before the Academy of Natural Sciences, March 24, 1857. (See *Proc. Acad. Nat. Sci.*, ix, p. vi.) This forms part of No. 126.

Unio pinguis, Lea, n. s 84
St. Peter's River, Upper Mississippi, B. W. Budd, M. D.
Journ. Acad. Nat. Sci., iv, 1858, p. 78.

Unio Higginsii, Lea, n. s 84
Muscatine, Iowa, Frank Higgins.
Journ. Acad. Nat. Sci., v, 1862, p. 188.

Unio Abbevillensis, Lea, n. s 84
Abbeville District, South Carolina, Dr. Barratt.
Journ. Acad. Nat. Sci., iv, 1858, p. 51.

1857. LEA, ISAAC—Continued.

Unio Jamesianus, Lea, n. s. 84
Jackson, Mississippi, U. P. James.
Journ. Acad. Nat. Sci., iv, 1858, p. 52.

Unio Texasiensis, Lea, n. s 84
De Witt County, Texas, W. Newcomb, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 359, as *U. Texasensis*.

Anodonta Lewisii, Lea, n. s 84
Erie Canal and Mohawk River, Herkimer Co., N. Y., James Lewis, M. D.; and Genesee River, below Rochester, Prof. C. Dewey.
Journ. Acad. Nat. Sci., iv, 1860, p. 362.

Anodonta lacustris, Lea, n. s 84
Crooked Lake and Little Lakes, New York, James Lewis, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 363.

Anodonta modesta, Lea, n. s 84
Pond, near Kalamazoo, Mich., J. Lewis, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 364.

122.

1857. LEA, ISAAC. Description of Three New Exotic species of Naïades. <*Proc. Acad. Nat. Sci., Phila.*, ix, p. 85. March, 1857.

Read before the Academy Natural Sciences, Phila., March 24, 1857. (See *Proc. Acad. Nat. Sci., Phila.*, ix, p. vi.) This forms part of No. 126.

Unio Poeyanus, Lea, n. s 85
Rio de las Balsas, near Coyucan, Mexico, Prof. Poey, of Havana.
Journ. Acad. Nat. Sci., iii, 1858, p. 315.

Unio Canadensis, Lea, n. s 85
St. Lawrence River, near Montreal, M. Carey Lea.
Journ. Acad. Nat. Sci., iv, 1860, p. 268.

Anodonta Holtonis, Lea, n. s 85
Near Cauca River, Province of Popayan, S. A., Rev. J. F. Holton.
Journ. Acad. Nat. Sci., iii, 1858, p. 316.

123.

1857. LEA, ISAAC. Description of Twelve New Species of Naïades from North Carolina. <*Proc. Acad. Nat. Sci., Phila.*, ix, pp. 85–86. March, 1857.

Read before the Academy of Natural Sciences March 10, 1857. (See *Proc. Acad. Nat. Sci., Phila.*, ix, p. vi.) This forms part of No. 126.

Unio Wheatleyi, Lea, n. s 85
Catawba River, Gaston Co., N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., v, 1862, p. 54, as *Unio Catawbensis*.

Unio percoarctatus, Lea, n. s 85
Catawba River, Gaston Co., N. C., C. M. Wheatley and F. A. Genth, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 59.

Unio gracilentus, Lea, n. s 85
Catawba River, Gaston Co., N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., v, 1862, p. 58.

Unio micans, Lea, n. s 85
Catawba River, Gaston Co., N. C., C. M. Wheatley and F. A. Genth, M. D.; Deep River Gulf, N. C., Prof. Emmons.
Journ. Acad. Nat. Sci., v, 1862, p. 59.

Unio Genthii, Lea, n. s 85
Catawba River, Gaston Co., N. C., C. M. Wheatley and F. A. Genth, M. D.; Deep River Gulf. N. C., Prof. Emmons.
Journ. Acad. Nat. Sci., v, 1862, p. 57.

Unio Emmonsii, Lea, n. s 86
Roanoke River, at Weldon, N. C., Prof. E. Emmons.
Journ. Acad. Nat. Sci., v, 1862, p. 56.

Unio spadiceus, Lea, n. s 86
Deep River Gulf, N. C., Prof. Emmons; and mountain streams, N. C., Joseph Clark.
Journ. Acad. Nat. Sci., v, 1862, p. 55.

Unio insulsus, Lea, n. s 86
Roanoke River, Weldon, N. C., Prof. Emmons.
Journ. Acad. Nat. Sci., v, 1862, p. 53.

1857. LEA, ISAAC—Continued.

Unio striatulus, Lea, n. s 86
Roanoke River, at Weldon, N. C. Prof. Emmons.
Journ. Acad. Nat. Sci., v, 1862, p. 55.

Unio macer, Lea, n. s 86
Roanoke River, Weldon, N. C., Prof. Emmons.
Journ. Acad. Nat. Sci., v, 1862, p. 202.

Unio contractus, Lea, n. s 86
Roanoke River, Weldon, N. C., Prof. Emmons.
Journ. Acad. Nat. Sci., v, 1862, p. 203.

Anodonta virgulata, Lea, n. s 86
Roanoke River, Weldon, N. C., Prof. Emmons; and Washington, Co., Georgia, Rev. G. White.
Journ. Acad. Nat. Sci., v, 1862, p. 213.

124.

1857. LEA, ISAAC. [Remarks on Unio spinosus.] <*Proc. Acad. Nat. Sci., Phila.*, ix, p. 101. April, 1857.

Verbal communication made to the Academy April 14, 1857.

125.

1857. LEA, ISAAC. Description of Six new species of Fresh Water and Land Shells of Texas and Tamaulipas, from the Collection of the Smithsonian Institution. <*Proc. Acad. Nat. Sci., Phila.*, ix, pp. 101–102. April, 1857.

Read before the Academy of Natural Sciences April 7, 1857. This forms part of No. 128.

Unio Berlandierii, Lea, n. s 101
Matamoras, Tamaulipas, Mexico, Luis Berlandier, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 369.

Unio Popeii, Lea, n. s 102
Devil's River and Rio Salado, Texas, Capt. Pope, U. S. A.
Journ. Acad. Nat. Sci., iv, 1860, p. 372.

Unio Bairdianus, Lea, n. s 102
Devil's River, Texas, Capt. Pope, U. S. A.
Journ. Acad. Nat. Sci., iv, 1860, p. 361.

Anodonta Henryiana, Lea, n. s 102
Matamoras, Tamaulipas, Mexico, L. Berlandier, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 373, as *A. Henryana*.

Helix (Polygyra) Couchiana, Lea, n. s 102
Texas, L. Berlandier, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 183.

Helix (Polygyra) Tamaulipasensis, Lea, n. s 102
Texas, L Berlandier, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 183.

126.

1857. LEA, ISAAC. Descriptions o four New Species of Exotic Uniones. | Descriptions of thirteen New Species of exotic Peristomata. | — | Descriptions of fifteen New Species of exotic Melaniana. | — | Description of the Byssus of the Genus Unio. | — | Descriptions of eleven New Species of exotic Uniones, | from Georgia. | — | Remarks on Triquetra Contorta. | — | Remarks on the Visual Organs of the Naiades. | — | Descriptions of thirteen New Species of Uniones, from Georgia. —| Descriptions of twelve New Species of Uniones, | from North Carolina. | — | Descriptions of six New Species of Uniones, | from Alabama. | Descriptions of eight New Species of Naiades, | from various parts of the United States. |— Descriptions of three New Species of Naiades, | — | by | Isaac Lea, LL. D. &c. &c. | — | Philadelphia: | Merrihew & Thompson, Printers. | Lodge St., north side of Pennsylvania Bank. | 1857. 8°. pp. 1-24.

Extracts from the Proceedings Academy Natural Sciences, Phila., and consists of numbers 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 125.

127.

1857. LEA, ISAAC. [Proposed change of the names of *Unio umbrosus* and *Unio Wheatleyi* to *U. umbrans* and *U. Catawbensis*, respectively.] <*Proc. Acad. Nat. Sci., Phila.*, ix, p. 104. May, 1857.

Verbal communication made May 5, 1857.

128.

1857. LEA, ISAAC. [Remarks on two specimens from the dark slates of the Red Sandstone of Phœnixville, Pa.] <*Proc. Acad. Nat. Sci., Phila.*, ix, p. 149. June, 1857.

Communication made June 2, 1857.

129.

1857. LEA, ISAAC. Descriptions of Twenty-Seven New Species of Uniones from Georgia. <*Proc. Acad. Nat. Sci., Phila.*, ix, pp. 169–172, June, 1857.

Read before the Academy of Natural Sciences June 23, 1857. This forms part of No. 146.

Unio subgibbosus, Lea, n. s 169
Oostenaula River, Floyd County, and Etowah River, Georgia, Rev. G. White.
Journ. Acad. Nat. Sci., iv, 1858, p. 53.

Unio Savannahensis, Lea, n. s 169
Savannah River, also Brantley's Mill, Washington County, Georgia, Rev. G. White; Sugar Creek, Mecklenburg County, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., iv, 1858, p. 81.

Unio virens, Lea, n. s 169
Georgia, Rev. G. White.
Journ. Acad. Nat. Sci., iv, 1858, p. 80.

Unio sublatus, Lea, n. s 169
Uchee Bar, below Columbus, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 82..

Unio obnubilus, Lea, n. s 169
Buckhead Creek, Burke County, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 84.

Unio opacus, Lea, n. s 169
Buckhead Creek, Burke County, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 86.

Unio similis, Lea, n. s 169
Buckhead Creek, Burke County, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 91.

Unio æquatus, Lea, n. s 170
Buckhead Creek, Burke County, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 89.

Unio naviculoides, Lea, n. s 170
Buckhead Creek, Burke County, Georgia, Bishop Elliott; Macon, I. C. Plant.
Journ. Acad. Nat. Sci., iv, 1858, p. 94.

Unio viridicatus, Lea, n. s 170
Buckhead Creek, Burke County, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 87.

Unio subflavus, Lea, n. s 170
Walnut Creek, above Macon, Georgia, Bishop Elliott and I. C. Plant.
Journ. Acad. Nat. Sci., iv, 1858, p. 90.

Unio rudus, Lea, n. s 170
Dry Creek, near Columbus, Georgia, Bishop Elliott; Macon, I. C. Plant.
Journ. Acad. Nat. Sci., iv, 1858, p. 194.

Unio tetricus, Lea, n. s 170
Flint River, near Albany, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1859, p. 195.

Unio Woodwardius, Lea, n. s 170
Etowah and Connasauga Rivers, Cass County, Georgia, Bishop Elliott and Rev. G. White.
Journ. Acad. Nat. Sci., iv, 1859, p. 199, as *U. Woodwardianus*.

Unio tenebricus, Lea, n. s 171
Etowah River, Georgia, Bishop Elliott and Rev. G. White.
Journ. Acad. Nat. Sci., iv, 1858, p. 83.

1857. LEA, ISAAC—Continued.

Unio rufus. Lea, n. s 171
Etowah River, Cass County, Georgia. Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1858, p. 85.

Unio modicus. Lea, n. s 171
Chattahoochee River, near Columbus, Georgia. Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1859, p. 204.

Unio denigratus. Lea, n. s 171
Streams near Columbus, Georgia. Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1859, p. 200.

Unio fumatus. Lea, n. s 171
Chattahoochee River, near Columbus, Georgia, Bishop Elliott; Hasepaliga Creek, Alabama. Dr. Neisler.
Journ. Acad. Nat. Sci., iv, 1858, p. 88.

Unio purpurellus. Lea, n. s 171
Flint River, near Albany, Georgia. Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1859, p. 196.

Unio penicillatus. Lea, n. s 171
Chattahoochee, near Columbus, Georgia. Dr. Boykin; near Atlanta, Bishop Elliott; Flint River, near Albany, Georgia. Bishop Elliott and Rev. G. White.
Journ. Acad. Nat. Sci., iv, 1859, p. 203.

Unio Plantii. Lea, n. s 171
Flint River, near Macon, Georgia. I. C. Plant.
Journ. Acad. Nat. Sci., iv, 1859, p. 192.

Unio subniger, Lea, n. s 172
Flint River, near Macon, Georgia. I. C. Plant.
Journ. Acad. Nat. Sci., iv, 1859, p. 196.

Unio bullorus. Lea, n. s 172
Flint River, near Macon, Georgia. I. C. Plant and H. M. Neisler, M. D.
Journ. Acad. Nat. Sci., iv, 1859, p. 191.

Unio Maconensis, Lea, n. s 172
Flint River, near Macon, Georgia. I. C. Plant.
Journ. Acad. Nat. Sci., iv, 1858, p. 93.

Unio obfuscus, Lea, n. s 172
Flint River, near Macon, Georgia. I. C. Plant.
Journ. Acad. Nat. Sci., iv, 1859, p. 197.

Unio aquilus, Lea, n. s 172
Flint River, near Macon, Georgia, I. C. Plant.
Journ. Acad. Nat. Sci., iv, 1858, p. 92.

130.

1857. LEA, ISAAC. [Observations on the geology of the Red Sandstone formation near Gwynned.] <*Proc. Acad. Nat. Sci., Phila.*, ix, p. 173. July, 1857.
Remarks made before the Academy July 7, 1857.

131.

1857. LEA, ISAAC. [Remarks on plates of fresh water Naïades from Siam.] <*Proc. Acad. Nat. Sci., Phila.*, ix, p. 205.
Remarks made December 15, 1857.

132.

1857. LEA, ISAAC. [Remarks on Trilobites found at Braintree, Mass.] <*Proc. Acad. Nat. Sci., Phila.*, ix, p. 205. December, 1857.
Remarks made December 22, 1857.

133.

1857. LEA, ISAAC. Descriptions of Exotic Genera and species of the family Unionidæ. <*Journ. Acad. Nat. Sci., Phila.*, iii. New Series, pp. 289–321.
Read before the Academy Natural Sciences, Phila., December 1, 1857. Extra copies printed for the author January, 1858. (See *Jour. Acad. Nat. Sci., Phila.*, iii, p. 4.)
For separate see No. 134.

Unio Hainesianus, Lea, pl. 21, fig. 1 303
Proc. Acad. Nat. Sci., viii, 1856, p. 92.

1857. LEA, ISAAC—Continued.

Unio Myersianus, Lea, pl. 22, fig. 2 290
Proc. Acad. Nat. Sci., viii, 1856, p. 92.
Unio Housei, Lea, pl. 23, fig. 3 291
Proc. Acad. Nat. Sci., viii, 1856, p. 92.
Unio lutens, Lea, pl. 24 fig. 4 291
Proc. Acad. Nat. Sci., viii, 1856, p. 93, as *Unio lutens*.
Unio gravidus, Lea, pl. 24, fig. 5 292
Proc. Acad. Nat. Sci., viii, 1856, p. 93.
Unio inornatus, Lea, pl. 24, fig. 6 293
Proc. Acad. Nat. Sci., viii, 1856, p. 93.
Unio rusticus, Lea, pl. 25, fig. 7 294
Proc. Acad. Nat. Sci., viii, 1856, p. 93.
Unio eximius, Lea, pl. 25, fig. 8 294
Proc. Acad. Nat. Sci., viii, 1856, p. 93.
Unio tumidulus, Lea, pl. 25, fig. 9 295
Proc. Acad. Nat. Sci., viii, 1856, p. 93.
Unio humilis, Lea, pl. 26, fig. 10 296
Proc. Acad. Nat. Sci., viii, 1856, p. 93.
Unio phaseolus, Lea, pl. 26, fig. 11 297
Proc. Acad. Nat. Sci., viii, 1856, p. 94.
Unio sagittarius, Lea, pl. 26, fig. 12 298
Proc. Acad. Nat. Sci., viii, 1856, p. 93.
Unio scobinatus, Lea, pl. 26, fig. 13 299
Proc. Acad. Nat. Sci., viii, 1856, p. 93.
Unio subtriatus, Lea, pl. 26, fig. 14 300
Proc. Acad. Nat. Sci., viii, 1856, p. 93, as *Unio substriatus*.
Unio Africanus, Lea, pl. 27, fig. 15 300
Proc. Acad. Nat. Sci., viii, 1856, p. 94.
Unio Verreauianus Lea, pl. 27, fig. 16 301
Proc. Acad. Nat. Sci., viii, 1856, p. 94.
Unio Shurtleffianus, Lea, pl. 27, fig. 17 302
Proc. Acad. Nat. Sci., viii, 1856, p. 94.
Unio effulgens, Lea, pl. 28, fig. 18 303
Proc. Acad. Nat. Sci., viii, 1856, p. 94.
Unio Shuttleworthii, Lea, pl. 28, fig. 19 304
Proc. Acad. Nat. Sci., viii, 1856, p. 94.
Unio Dunkerianus, Lea, pl. 28, fig. 20 305
Proc. Acad. Nat. Sci., viii, 1856, p. 94.
Unio nucleus, Lea, pl. 28, fig. 21 306
Proc. Acad. Nat. Sci., viii, 1856, p. 94.
Unio Brownii, Lea, pl. 29, fig. 22 307
Proc. Acad. Nat. Sci., viii, 1856, p. 95.
Unio Wheatleyanus, Lea, pl. 29, fig. 23 308
Proc. Acad. Nat. Sci., viii, 1856, p. 94.
Unio suavidicus, Lea, pl. 29, fig. 24 309
Proc. Acad. Nat. Sci., viii, 1856, p. 95.
Unio Nuttallianus, Lea, pl. 30, fig. 25 310
Proc. Acad. Nat. Sci., viii 1856, p. 103.
Unio umbrosus, Lea, pl. 30, fig. 26 311
Proc. Acad. Nat. Sci., viii, 1856, p. 95.
Unio Newcombianus, Lea, pl. 30, fig. 27 312
Proc. Acad. Nat. Sci., viii, 1856, p. 103.
Unio Cambodiensis, Lea, pl. 30, fig. 28 313
Proc. Acad. Nat. Sci., viii, 1856, p. 103.
Unio Coloradoensis, Lea, pl. 31, fig. 29 314
Proc. Acad. Nat. Sci., viii, 1856, p. 103.
Unio Poeyanus, Lea, pl. 32, fig. 30 315
Proc. Acad. Nat. Sci., ix, 1857, p. 85.
Anodonta Holtonsis, Lea, pl. 32, fig. 31 316
Proc. Acad. Nat. Sci., ix, 1857, p. 85.
Subgenus PLAGIODON, Lea 317
Proc. Acad. Nat. Sci., viii, 1856, p. 79.
Plagiodon isocardioides, Lea, pl. 32, fig. 32 318
Proc. Acad. Nat. Sci., viii, 1856, p. 79, *P. isocardiodes*.
Triquetra contorta, Lea, pl. 33, fig. 33 319
Proc. Acad. Nat. Sci., viii, 1856, p. 79, as *Triquetra lanceolata*, Lea.

134.

1857. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descriptions of New Species in the Family Unionidæ. | Read before the Academy of Natural Sciences of Philadelphia and | published in their Journal. | by | Isaac Lea, LL. D. | [title]. | with thirteen plates. | Vol. vi. | Part I.—1857. | Philadelphia: | Printed for the author. | Merrihew & Thompson Printers. 4to. pp. 7–48.

This consists of a separate of No. 133, and, with No. —, forms No. 150.

135.

1858. LEA, ISAAC. "Remarks on the Unionidæ of Nebraska Territory and Red River of the North." <*Proc. Acad. Nat. Sci., Phila.*, x, pp. 13–14. March, 1858.

Communicated March 23, 1858. This forms part of No. 146.

136.

1858. LEA, ISAAC. Descriptions of New Species of Unio, from Tennessee, Alabama, and North Carolina. <*Proc. Acad. Nat. Sci., Phila.*, x, pp. 40–41. March, 1858.

Read before the Academy March 23, 1858. This forms part of No. 146.

Unio turgidulus, Lea, n. s 40
Cumberland River, Tennessee. Dr. Troost and T. C. Downie; Florence, Alabama, Rev. G. White.
Journ. Acad. Nat. Sci., v, 1862, p. 62.

Unio perradiatus, Lea, n. s 40
Florence, Alabama, Rev. George White.
Journ. Acad. Nat. Sci., v, 1862, p. 66.

Unio Meredithii, Lea, n. s 40
Tennessee River, Florence, Alabama, L. B. Thornton.
Journ. Acad. Nat. Sci., v, 1862, p. 65.

Unio Pybasii, Lea, n. s 40
Tennessee River at Florence, Alabama, B. Pybas.
Journ. Acad. Nat. Sci., v, 1862, p. 67.

Unio virescens, Lea, n. s 40
Tennessee River at Florence, Alabama, B. Pybas.
Journ. Acad. Nat. Sci., iv, 1860, p. 341.

Unio Neusensis, Lea, n. s 41
Neuse River, six miles from Raleigh, N. C., Prof. Emmons.
Journ. Acad. Nat. Sci., v, 1862, p. 60.

Unio purus, Lea, n. s 41
Neuse River, six miles from Raleigh, N. C., Prof. Emmons.
Journ. Acad. Nat. Sci., v, 1862, p. 61.

Unio exactus, Lea, n. s 41
Neuse River, six miles from Raleigh, N. C., Prof. Emmons.
Journ. Acad. Nat. Sci., v, 1862, p. 62.

137.

1858. LEA, ISAAC. Descriptions of a New Helix and Two New Planorbes. <*Proc. Acad. Nat. Sci., Phila.*, x, p. 41. March, 1858.

Read before the Academy of Natural Sciences March 23, 1858. This forms part of No. 146.

Helix Clarkii, Lea, n. s 41
Tuskee Cove, Cherokee County, North Carolina, Prof. D. Christy, Hamilton, Ohio.

Planorbis Wheatleyi, Lea, n. s 41
Cotoma Creek, Montgomery County, Alab., C. M. Wheatley.

Planorbis Newberryi, Lea, n. s 41
Klamath Lake and Canoe Creek, California, J. S. Newberry, M. D.

138.

1858. LEA, ISAAC. [Remarks on Permian and Triassic Formations in Kansas and Pennsylvania.] <*Proc. Acad. Nat. Sci., Phila.*, x, pp. 90–92. April, 1858.

Communicated April 20, 1858. This forms part of No. 146.

139.

1858. LEA, ISAAC. [Remarks on some remarkable specimens of Unionidæ.] <*Proc. Acad. Nat. Sci., Phila.*, x, p. 114. May, 1858.

Remarks made before the Academy Natural Sciences May 18, 1858. This forms part of No. 146.

Margaritana complanata.
Unio multiplicatus.

140.

1858. LEA, ISAAC. Description of Four New Fresh-water Molluscs, from the Isthmus of Darien and Honduras. <*Proc. Acad. Nat. Sci., Phila.*, x, p. 118. May, 1858.

Read before the Academy of Natural Sciences May 18, 1858. This forms part of No. 146.

Unio Caldwellii, Lea, n. s. 118
Isthmus of Darien, H. C. Caldwell, M. D., U. S. Navy.
Journ. Acad. Nat. Sci., iv, 1860, p. 265.

Unio Goascoranensis, Lea, n. s 118
River Goascoran, Honduras, Pacific Slope, J. L. Le Conte, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 258.

Anodonta luteola, Lea, n. s 118
Isthmus of Darien, H. C. Caldwell, M. D., U. S. Navy.
Journ. Acad. Nat. Sci., iv, 1860, p. 267.

Melania Planensis, Lea, n. s 118
Plan and Omoa, Valley of Ulua River, Atlantic slope, Honduras, J. L. Le Conte, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 127.

141.

1858. LEA, ISAAC. [Remarks on the reproduction of *Unio rubiginosus*, Lea.] <*Proc. Acad. Nat. Sci., Phila.*, x, p. 135. June, 1858.

Remarks made before the Academy Natural Sciences June 15, 1858. This forms part of No. 146.

142.

1858. LEA, ISAAC. Descriptions of seven new species of Margaritanæ, and four new species of Anodontæ. <*Proc. Acad. Nat. Sci., Phila.*, x, pp. 138–139. June, 1858.

Read before the Academy of Natural Sciences June 22, 1858. This forms part of No. 146.

Margaritana Elliottii, Lea, n. s. 138
Chattahoochee River, near Columbus, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1859, p. 226.

Margaritana triangulata, Lea, n. s 138
Upper Chattahoochee, Georgia, Bishop Elliott; Columbus, Georgia, Dr. Boykin and J. Postell; Potato Creek, Georgia, Rev. G. White; and Sawney's Creek, S. Carolina, Dr. Blanding.
Journ. Acad. Nat. Sci., iv, 1859, p. 228.

Margaritana Connasaugaensis, Lea, n. s 138
Connasauga River, one of the head waters of the Alabama River, in Gilmer Co., Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1859, p. 229.

Margaritana Etowahensis, Lea, n. s 138
Tennessee, Dr. Troost; Etowah River, Georgia, Rev. G. White.
Journ. Acad. Nat. Sci., iv, 1859, p. 227.

Margaritana Gesneri, Lea, n. s 138
Uphaupee Creek, Alabama, below Columbia, Georgia, W. Gesner and G. Hallenbeck.
Journ. Acad. Nat. Sci., v, 1862, p. 211.

Margaritana Tombecbeensis, Lea, n. s 138
Tombecbee River, near Columbus, Mississippi, Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 107, as *M. Tombigbeensis.*

Margaritana Spillmanii, Lea, n. s 138
Tombecbee River, near Columbus, Mississippi, Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 105.

1858. LEA, ISAAC.—Continued.

Anodonta Hallenbeckii, Lea, n. s 139
Ulphanpee Creek, Macon Co., Geo., W. Gesner.
Journ. Acad. Nat. Sci., iv, 1859, p. 232.

Anodonta Gesneri, Lea, n. s 139
Ulphanpee Creek, Macon Co., Alabama, W. Gesner, of Milledgeville, Georgia.
Journ. Acad. Nat. Sci., iv, 1859, p. 231.

Anodonta Darienis, Lea, n. s 139
Hopeton, near Darien, Georgia, J. Hamilton Couper; and Swift Creek, near Macon, Georgia, Bishop Elliott and J. C. Plant.
Journ. Acad. Nat. Sci., iv, 1859, p. 230.

Anodonta Danielsii, Lea, n. s 139
Topeka, Kansas, Prof. Edward Daniels.
Journ. Acad. Nat. Sci., iv, 1860, p. 365.

143.

1858. LEA, ISAAC. Descriptions of Twelve New Species of Uniones and other Fresh-water Shells of the United States. <*Proc. Acad. Nat. Sci., Phila.*, x, pp. 165-166. July, 1858.

Read before the Academy of Natural Sciences July 6, 1858.
This forms part of No. 146.

Unio Roswellensis, Lea, n. s 165
Chattahoochee River at Roswell, Cobb Co., Georgia, N. A. Pratt, Jr.
Journ. Acad. Nat. Sci., iv, 1859, p. 205.

Unio Postellii, Lea, n. s 165
Randall's Creek, near Columbus, Georgia, Bishop Elliott; and at Carter's Creek, Baldwin County Georgia, J. Postell.
Journ. Acad. Nat. Sci., iv, 1859, p. 214.

Unio Neisleri, Lea, n. s 165
Flint River, at Lanier, Georgia, Dr. H. M. Neisler.
Journ. Acad. Nat. Sci., iv, 1859, p. 212.

Unio Prattii, Lea, n. s 166
Chattahoochee River, at Roswell, Cobb Co., Georgia, N. A. Pratt, Jr.; and Tobesantke Creek, near Macon Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1859, p. 206.

Unio Chattanoogaensis, Lea, n. s 166
Chattanooga, Tenn., T. Stewardson, M. D.; Etowah River, Rev. G. White; Coosawattee and Oostanaula Rivers, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1859, p. 209.

Unio Downiei, Lea, n. s 166
Buck Lake, an enlargement of Satilla River, Georgia, J. C. Downie and J. Postell.
Journ. Acad. Nat. Sci., iv, 1859, p. 210.

Unio satillaensis, Lea, n. s 166
Satilla River, Camden Co., Georgia, T. C. Downie.
Journ. Acad. Nat. Sci., iv, 1859, p. 216.

Unio Hazlhurstianus, Lea, n. s 166
Satilla River, Camden Co., Georgia, T. C. Downie.
Journ. Acad. Nat. Sci., iv, 1859, p. 211.

Melania Postellii, Lea, n. s 166
Altamaha River, Georgia, James Postell.
Journ. Acad. Nat. Sci., iv, 1859, p. 214.

Paludina Elliottii, Lea, n. s 166
Othcaloosa Creek, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., vi, 1866, p. 184.

Lymnæa Haydenii, Lea, n. s 166
Yellowstone and Big Sioux Rivers, Dr. Hayden.
Journ. Acad. Nat. Sci., vi, 1866, p. 5[illegible]

Anodonta Neisleriana, Lea, n. s 166
Kanawha Lake, [illegible], J. S. Neisler, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. [illegible]

144.

1858. LEA, ISAAC. [Remarks on *Trigonia* [illegible]] <*Proc. Acad. Nat. Sci., Phila.*, x, p. 179. October, 1858.

Communicated to the Academy Natural Sciences October 22, 1858.

145.

58. LEA, ISAAC. [Remarks on fossils presented by Mr. Foulke to the Academy of Natural Sciences, Phila.] <*Proc. Acad. Nat. Sci., Phila.*, x, pp. 218–221.
Communicated December 14, 1858. Forms part of No. 146.

146.

58. LEA, ISAAC. [Title-page not seen]. 8°, pp. 1–26.
Consists of Numbers 129, 135, 136, 137, 138, 139, 140, 141, 142, 143, 145.

147.

58. LEA, ISAAC. Descriptions of the Embryonic Forms of Thirty-eight species of Unionidæ. <*Journ. Acad. Nat. Sci., Phila.*, iv. New Series, pp. 43–50, pl. v. Separate 4to, pp. 43–50.
Read before the Academy Natural Sciences November 23, 1858.
Extra copies printed for the author December, 1858. (See *Journ. Acad. Nat. Sci., Phila.*, iv, n. s., p. 3.)
This also forms part of No. 149.

Unio obtusus, Lea, pl. 5, fig. 1 46
Unio Anodontoides, Lea, fig. 2 46
Unio multiplicatus, Lea, fig. 3 46
Unio rutilans, Lea, fig. 4 46
Unio penicillatus, Lea, fig. 5 47
Unio securis, Lea, fig. 6 47
Unio retusus, Lam., fig. 7 47
Unio Pratii, Lea, fig. 8 47
Unio spatulatus, Lea, fig. 9 47
Unio luteolus, Lam., fig. 10 47
Unio rectus, Lam., fig. 11 47
Unio phaseolus, Hild., fig. 12 47
Unio occidens, Lea, fig. 13 47
Unio novi-eboraci, Lea, fig. 14 47
Unio ovatus, Say, fig. 15 47
Unio Woodwardianus, Lea, fig. 16 47
Unio multiradiatus, Lea, fig. 17 47
Unio ligamentinus, Lam., fig. 18 47
Unio triangularis, Bar., fig. 19 48
Unio radiatus, Lam., fig. 20 48
Unio perplexus, Lea, fig. 21 48
Unio undulatus, Bar., fig. 22 48
Unio pressus, Lea, fig. 23 48
Unio lævi-simus, Lea, fig. 24 48
Unio alatus, Say, fig. 25 48
Margaritana rugosa, Lea, fig. 26 48
Margaritana marginata, Lea, fig. 27 49
Margaritana triangulata, Lea, fig. 28 49
Margaritana complanata, Lea, fig. 29 49
Margaritana deltoidea, Lea, fig. 30 49
Margaritana Hildrethiana, Lea, fig. 31 49
Anodonta Lewisii, Lea, fig. 32 49
Anodonta ovata, Lea, fig. 33 49
Anodonta decora, Lea, fig. 34 49
Anodonta Ferussaciana, Lea, fig. 35 50
Anodonta imbecilis, Say, fig. 36 50
Anodonta edentula, Lea, fig. 37 50
Anodonta undulata, Say, fig. 38 50
Ovum of *Unio subangulatus*, Lea, fig. 39 50

148.

858. LEA, ISAAC. New Unionidæ of the United States. <*Journ. Acad. Nat. Sci.*, iv. New Series, pp. 51–95. Plates vi to xx.
Read before the Academy Natural Sciences, Phila., November 23, 1858. Extra copies printed for the author December, 1858. (See *Journ. Acad. Nat. Sci., Phila.*, iv, n. s., p. 3.)
This forms part of No. 149.

1858. LEA, ISAAC—Continued.

Unio Aiberillensis, Lea, pl. 6, fig. 34 51
Proc. Acad. Nat. Sci., 1857, p. 84.
Unio Jamesianus, Lea, pl. 6, fig. 35 52
Proc. Acad. Nat. Sci., 1857, p. 84.
Unio subgibbosus, Lea, pl. 6, fig. 36 53
Proc. Acad. Nat. Sci., 1857, p. 169.
Unio Elliotti, Lea, pl. 7, fig. 37 54
Proc. Acad. Nat. Sci., 1856, p. 262.
Unio gracillior, Lea, pl. 8, fig. 38 56
Proc. Acad. Nat. Sci., 1856, p. 262, as *U. gracilior*.
Unio pullatus, Lea, pl. 8, fig. 39 57
Proc. Acad. Nat. Sci., 1856, p. 262, as *U. pullatis*.
Unio farosus, Lea, pl. 8, fig. 40 58
Proc. Acad. Nat. Sci., 1856, p. 262.
Unio rutilans, Lea, pl. 9, fig. 41 59
Proc. Acad. Nat. Sci., 1856, p. 262.
Unio errans, Lea, pl. 9, fig. 42 60
Proc. Acad. Nat. Sci., 1856, p. 262.
Unio vicinus, Lea, pl. 9, fig. 43 61
Proc. Acad. Nat. Sci., 1856, p. 262.
Unio subellipsis, Lea, pl. 10, fig. 44 62
Proc. Acad. Nat. Sci., 1856, p. 262.
Unio geminus, Lea, pl. 10, fig. 45 63
Proc. Acad. Nat. Sci., 1856, p. 262.
Unio rostriformis, Lea, pl. 10, fig. 46 64
Proc. Acad. Nat. Sci., 1856, p. 262, as *U. rostraformis*.
Unio Blandianus, Lea, pl. 11, fig. 47 65
Proc. Acad. Nat. Sci., 1856, p. 263, and *Proc. Acad. Nat. Sci.*, 1857, p. 31.
Unio concestator, Lea, pl. 12, fig. 48 66
Proc. Acad. Nat. Sci., 1857, p. 31.
Unio extensus, Lea, pl. 12, fig. 49 67
Proc. Acad. Nat. Sci., 1857, p. 31.
Unio pyriformis, Lea, pl. 12, fig. 50 69
Proc. Acad. Nat. Sci., 1857, p. 31.
Unio rubellinus, Lea, pl. 13, fig. 51 70
Proc. Acad. Nat. Sci., 1857, p. 32.
Unio excavatus, Lea, pl. 13, fig. 52 71
Proc. Acad. Nat. Sci., 1857, p. 32.
Unio umbrans, Lea, pl. 13, fig. 53 72
Proc. Acad. Nat. Sci., 1857, p. 32, as *umbrosus*.
Unio Othealogensis, Lea, pl. 14, fig. 54 74
Proc. Acad. Nat. Sci., 1857, p. 32.
Unio Columbensis, Lea, pl. 14, fig. 55 75
Proc. Acad. Nat. Sci., 1857, p. 31.
Unio apicinus, Lea, pl. 14, fig. 56 76
Proc. Acad. Nat. Sci., 1857, p. 32.
Unio intercedens, Lea, pl. 15, fig. 57 77
Proc. Acad. Nat. Sci., 1857, p. 32.
Unio pinguis, Lea, pl. 15, fig. 58 78
Proc. Acad. Nat. Sci., 1857, p. 84.
Unio fallax, Lea, pl. 15, fig. 59 79
Proc. Acad. Nat. Sci., 1857, p. 32.
Unio virens, Lea, pl. 16, fig. 60 80
Proc. Acad. Nat. Sci., 1857, p. 169.
Unio Sarannahensis, Lea, pl. 16, fig. 61 81
Proc. Acad. Nat. Sci., 1857, p. 169.
Unio sublatus, Lea, pl. 16, fig. 62 82
Proc. Acad. Nat. Sci., 1857, p. 169.
Unio tenebricus, Lea, pl. 17, fig. 63 83
Proc. Acad. Nat. Sci., 1857, p. 171.
Unio obnubilus, Lea, pl. 17, fig. 64 84
Proc. Acad. Nat. Sci., 1857, p. 169.
Unio rufus, Lea, pl. 17, fig. 65 85
Proc. Acad. Nat. Sci., 1857, p. 171.
Unio opacus, Lea, pl. 18, fig. 66 86
Proc. Acad. Nat. Sci., 1857, p. 169.

1858. LEA, ISAAC—Continued.

Unio viridicatus, Lea, pl. 18, fig. 67 87
Proc. Acad. Nat. Sci., 1857, p. 170.

Unio fumatus, Lea, pl. 18, fig. 68 88
Proc. Acad. Nat. Sci., 1857, p. 171.

Unio æquatus, Lea, pl. 19, fig. 69 89
Proc. Acad. Nat. Sci., 1857, p. 170.

Unio subflavus, Lea, pl. 19, fig. 70 90
Proc. Acad. Nat. Sci., 1857, p. 170.

Unio similis, Lea, pl. 19, fig. 71 91
Proc. Acad. Nat. Sci., 1857, p. 169.

Unio aquilus, Lea, pl. 20, fig. 72 92
Proc. Acad. Nat. Sci., 1857, p. 172.

Unio maconensis, Lea, pl. 20, fig. 73 93
Proc. Acad. Nat. Sci., 1857, p. 172.

Unio naviculoides, Lea, pl. 20, fig. 74 94
Proc. Acad. Nat. Sci., 1857, p. 170.

149.

1858. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descriptions of New Species, their Soft Parts, and Embryonic Forms, in | the Family Unionidæ. | Read before the Academy of Natural Sciences of Philadelphia and | published in their Journal. | by | Isaac Lea, LL. D., | President of the Academy of Natural Sciences of Philadelphia, Etc., Etc. | with sixteen plates. | Vol. 6,—Part II. | Philadelphia: | Printed for the author. 4to., pp. 43–95.

This with No. 134 forms No. 150.

150.

1858. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descriptions of New Species, their Soft Parts, and Embryonic Forms, in | the Family Unionidæ. | Read before the Academy of Natural Sciences of Philadelphia and | published in their Journal. | by | Isaac Lea, LL. D., | President of the Academy of Natural Sciences of Philadelphia, Etc., Etc. | with twenty-nine plates. | Vol. 6. | Philadelphia: | Printed for the author. 4to., pp. 1–97.

This consists of numbers 134 and 149.

151.

1859. LEA, ISAAC. Descriptions of Eight New Species of Unionidæ, from Georgia, Mississippi, and Texas. <*Proc. Acad. Nat. Sci., Phila.*, xi, pp. 112–113. April, 1859.

Read before the Academy Natural Sciences April 5, 1859. Ordered to be printed in the Proceedings April 26, 1859.

Proceedings of the Academy for April laid on the table May 10, 1859. (See *Proc. Acad. Nat. Sci., Phila.*, xi, p. 150.) This forms part of No. 172.

Unio spissus, Lea, n. s. 112
Satilla River, Wayne Co., Geo., T. C. Downie.
Journ. Acad. Nat. Sci., iv, 1859, p. 208.

Unio corvus, Lea, n. s. 112
Buckhead Creek, Burke Co., Geo., Bishop Elliott; Ogeechee River, Geo., Prof. Hanley.
Journ. Acad. Nat. Sci., iv, 1859, p. 217.

Unio Burkensis, Lea, n. s. 112
Buckhead Creek, Burke Co., Geo., Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1859, p. 215.

Unio aureus, Lea, n. s. 112
Texas, W. Newcomb, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 195.

Unio ovatus, Lea, n. s. 112
Tombigbee River, Columbus, Miss., Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 103.

1859. LEA, ISAAC—Continued.

Unio permiscens, Lea, n. s 112
Tombigbee River, Columbus, Miss., Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 102.

Margaritana elliptica, Lea, n. s 113
Tombigbee River, Columbus, Miss., Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 106.

Anodonta Texasensis, Lea, n. s 113
Texas, W. Newcomb, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 366.

152.

1859. LEA, ISAAC. Descriptions of Twenty-one New Species of Exotic Unionidæ. <*Proc. Acad. Nat. Sci., Phila.*, xi, pp. 151–154. May, 1859.

Read before the Academy Natural Sciences April 19, 1859.
Ordered to be published in the Proceedings May 31, 1859. This forms part of No. 172.

Unio Sikkimensis, Lea, n. s 151
Sikkim, India, H. Cuming and Prof. Hanley.
Journ. Acad. Nat. Sci., iv, 1860, p. 251.

Unio diminutis, Lea, n. s 151
East Africa, H. Cuming and Prof. Hanley.
Journ. Acad. Nat. Sci., iv, 1860, p. 254.

Unio plicatulus, Lea, n. s 152
Borneo, H. Cuming.
Journ. Acad. Nat. Sci., iv, 1860, p. 247.

Unio navigioliformis, Lea, n. s 152
Hab. ——? H. Cuming.
Journ. Acad. Nat. Sci., iv, 1860, p. 245.

Unio fluctiger, Lea, n. s 152
Hab. ——? H. Cuming.
Journ. Acad. Nat. Sci., iv, 1860, p. 250.

Unio mutabilis, Lea, n. s 152
Brisbane Water, Australia; New Zealand, H. Cuming; and Murray River, Australia, W. Newcomb, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 248.

Unio Thwaitsii, Lea, n. s 152
Ceylon, Mr. Thwaites, by H. Cuming.
Journ. Acad. Nat. Sci., iv, 1860, p. 246.

Unio melleus, Lea, n. s 152
Hab. ——? H. Cuming.
Journ. Acad. Nat. Sci., iv, 1860, p. 250.

Unio Dysonii, Lea, n. s 152
Honduras, D. Dyson.
Journ. Acad. Nat. Sci., iv, 1860, p 252.

Unio Demararaensis, Lea, n. s 153
Demerara, H. Cuming.
Journ. Acad. Nat. Sci., iv, 1860, p. 253, as *U. Demararaensis*.

Unio Mauritianus, Lea, n. s 153
Island of Mauritius, H. Cuming.
Journ. Acad. Nat. Sci., iv, 1860, p. 257.

Unio vittatus, Lea, n. s 153
Australia, H. Cuming.
Journ. Acad. Nat. Sci., iv, 1860, p. 249.

Unio persulcatus, Lea, n. s 153
Mexico, Prof. Hanley.
Journ. Acad. Nat. Sci., iv, 1860, p. 255,

Unio Shanghaiensis, Lea, n. s 153
Shanghai, China, H. Cuming.
Journ. Acad. Nat. Sci., iv, 1860, p. 242.

Unio Layardii, Lea, n. s 153
Ceylon, Frederick Layard.
Journ. Acad. Nat. Sci., iv, 1860, p. 243.

Unio Japanensis, Lea, n. s 153
Japan, H. Cuming.
Journ. Acad. Nat. Sci., iv, 1860, p. 244.

1859. LEA, ISAAC—Continued.

Unio Sumatrensis, Lea, n. s. 153
Sumatra, H. Cuming.
Journ. Acad. Nat. Sci., iv, 1860, p. 239.

Unio Rowellii, Lea, n. s. 153
Chagres River, New Granada, Rev. Joseph Rowell.
Journ. Acad. Nat. Sci., iv, 1860, p. 256.

Unio Wilsonii, Lea, n. s. 153
Eastern Branch of Isaac's Plain, New South Wales, T. B. Wilson, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 256.

Anodonta Dahomeyensis, Lea, n. s. 154
Dahomey, West Africa, Mr. Fraser, by H. Cuming.
Journ. Acad. Nat. Sci., iv, 1860, p. 261.

Anodonta Senegalensis, Lea, n. s. 154
Senegal, J. C. Jay, M. D., E. Verreaux, and H. Cuming.
Journ. Acad. Nat. Sci., iv, 1860, p. 260.

153.

1859. LEA, ISAAC. Descriptions of Two New Species of Uniones, from Georgia. <*Proc. Acad. Nat. Sci., Phila.*, xi, 1859, p. 154.

Read before the Academy of Natural Sciences April 19, 1859, and ordered to be published in the Proceedings May 31, 1859. This forms part of No. 172.

Unio fibulordes, Lea, n. s. 154
Connasauga River, Geo., Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1859, p. 219.

Unio compactus, Lea, n. s. 154
Etowah River, Geo., Bishop Elliott and Rev. G. White.
Journ. Acad. Nat. Sci., iv, 1859, p. 218.

154.

1859. LEA, ISAAC. Descriptions of seven new species of Uniones from South Carolina Florida, Alabama, and Texas. <*Proc. Acad. Nat. Sci., Phila.*, xi, pp. 154–155.

Read before the Academy Natural Sciences May 10, 1859, and ordered to be published in the Proceedings May 31, 1859. This forms part of No. 172.

Unio cacao, Lea, n. s. 154
Chacktahachie River, West Florida, Major Le Conte.
Journ. Acad. Nat. Sci., iv, 1860, p. 344.

Unio hepaticus, Lea, n. s. 154
Salkakatche River, S. Carolina, J. Postell.
Journ. Acad. Nat. Sci., iv. 1860, p. 348.

Unio viridiradiatus, Lea, n. s. 154
Big Uchee, Ala., near Columbus, Geo., G. Hallenbeck.
Journ. Acad. Nat. Sci., iv, 1860, p. 336.

Unio macrodon, Lea, n. s. 154
Rutersville, Texas, Prof. C. G. Forshey.
Journ. Acad. Nat. Sci., v, 1862, p. 193.

Unio Houstonensis, Lea, n. s. 155
Houston, Texas, F. Moore, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 358.

Unio Rutersvillensis, Lea, n. s. 155
Rutersville, Fayette Co., Texas, Prof. C. G. Forshey.
Journ. Acad. Nat. Sci., iv, 1860, p. 356.

Unio Forsheyi, Lea, n. s. 155
Fayette Co., Texas, Prof. C. S. Forshey.
Journ. Acad. Nat. Sci., iv, 1860, p. 357.

155.

1859. LEA, ISAAC. "Remarks on the death of Alexander von Humboldt." <*Proc. Acad. Nat. Sci., Phila.*, xi, pp. 162–164. June, 1859.

Communicated to the Academy Natural Sciences June 7, 1859. This forms part of No. 172.

156.

1859. LEA, ISAAC. Descriptions of Twelve New Species of Uniones, from Georgia. <*Proc. Acad. Nat. Sci., Phila.*, xi, 1859, pp. 170–172. June, 1859.

Read before the Academy of Natural Sciences June 21, 1859, and ordered to be published in the Proceedings June 28, 1859. This forms part of No. 172.

Unio Baldwinensis, Lea, n. s 170
Carter's Creek, Baldwin Co., Geo., J. Postell.
Journ. Acad. Nat. Sci., iv, 1860, p. 330.

Unio viridans, Lea, n. s 170
Near Columbus, Geo., G. Hallenbeck.
Journ. Acad. Nat. Sci., iv, 1860, p. 337.

Unio Hallenbeckii, Lea, n. s 170
Flat Rock Creek and Four Mile Creek, near Columbus, Geo., G. Hallenbeck and Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1860, p. 328.

Unio salebrosus, Lea, n. s 170
Flat Rock Creek and Bull Creek, Georgia, G. Hallenbeck; and Chattahoochee River, near Columbus, Geo., Bishop Elliott
Journ. Acad. Nat. Sci., iv, 1860, p. 332.

Unio modicellus, Lea, n. s 171
Connasauga River, Bishop Elliott; and Chattanooga River, Geo., T. Stewardson, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 347.

Unio latus, Lea, n. s 171
Savannah River, near Savannah, Geo., Rev. G. White and Major Le Conte.
Journ. Acad. Nat. Sci., iv, 1860, p. 334.

Unio verutus, Lea, n. s 171
Flat Rock Creek, near Columbus, Geo., G. Hallenbeck.
Journ. Acad. Nat. Sci., iv, 1860, p. 335.

Unio Johannis, Lea, n. s 171
Connasauga River, Bishop Elliott; and Etowah River, Geo., Rev. G. White; Alabama River, Dr. Budd.
Journ. Acad. Nat. Sci., iv, 1860, p. 343.

Unio Raeensis, Lea, n. s 171
Chattahoochee, near Columbus, and Rae's Creek, Geo., Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1860, p. 331.

Unio inusitatis, Lea, n. s 171
Swift Creek, below Macon, Geo., Bishop Elliott.
Journ. Acad. Nat. Sci., iv, 1859, p. 333.

Unio Jonesii, Lea, n. s 171
Uharlee Creek, Geo., J. Postell.
Journ. Acad. Nat. Sci., iv, 1860, p. 339.

Unio quadratus, Lea, n. s 172
Carter's Creek, J. Postell; and Factory Creek, Geo., G. Hallenbeck.
Journ. Acad. Nat. Sci., iv, 1860, p. 338.

157.

1859. LEA, ISAAC. [Remark on *Unio Kleinianus*, Lea, possessing a branchial uterus in both lobes of the branchia on each side.] <*Proc. Acad. Nat. Sci., Phila.*, xi, p. 177.

Communicated to the Academy Natural Sciences July 5, 1859. This forms part of No. 172.

"This very remarkable feature, in the functions of the female of this species, constitutes the third which has been observed by Mr. Lea, two he had formerly shown to the Academy, namely, that of *Unio multiplicatus*, Lea, and *rubiginosus*, Lea."

158.

1859. LEA, ISAAC. Descriptions of Four New Species of Exotic Unionidæ. <*Proc. Acad. Nat. Sci., Phila.*, xi, p. 187. July, 1859.

Read before the Academy Natural Sciences July 5, 1859, and ordered to be printed in the Proceedings July 26, 1859. This forms part of No. 172.

Unio bulloides, Lea, n. s 187
Rio de la Plata, S. Amer., G. Von dem Busch, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 264.

1859. LEA, ISAAC—Continued.

Monocondylæa planulata, Lea, n. s. 187
Java, G. Von dem Busch, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 262.

Monocondylæa rhomboidea, Lea, n. s 187
Euphrates River, near Bagdad, Asia, G. Von dem Busch, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 263.

Unio rudus, Lea, n. s. 187
Rio de la Plata, S. America, G. Von dem Busch, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 266.

159.

1859. LEA, ISAAC. New Unionidæ of the United States. <*Journ. Acad. Nat. Sci.*, iv. New series, pp. 191–233. Plates 21 to 32.

Extra copies printed for the author September, 1859. Forms No. 160.

Unio bulbosus, Lea, pl. 21, fig. 75 191
Proc. Acad. Nat. Sci., 1857, p. 172.

Unio Plantii, Lea, pl. 21, fig. 76 192
Proc. Acad. Nat. Sci., 1857, p. 171.

Unio sudus, Lea, pl. 21, fig. 77 194
Proc. Acad. Nat. Sci., 1857, p. 170.

Unio tetricus, Lea, pl. 22, fig. 78 195
Proc. Acad. Nat. Sci., 1857, p. 170.

Unio subniger, Lea, pl. 22, fig. 79 196
Proc. Acad. Nat. Sci., 1857, p. 172.

Unio obfuscus, Lea, pl. 22, fig. 80 197
Proc. Acad. Nat. Sci., 1857, p. 172.

Unio purpurellus, Lea, pl. 23, fig. 81 198
Proc. Acad. Nat. Sci., 1857, p. 171.

Unio Woodwardianus, Lea, pl. 23, fig. 82, and pl. 29, fig. 103 199
Proc. Acad. Nat. Sci., 1857, p. 170, as *U. Woodwardius*.

Unio denigratus, Lea, pl. 23, fig. 83 200
Proc. Acad. Nat. Sci., 1857, p. 171.

Unio radians, Lea, pl. 23, fig. 84 201
Proc. Acad. Nat. Sci., 1857, p. 32.

Unio penicillatus, Lea, pl. 23, fig. 85 203
Proc. Acad. Nat. Sci, 1857, p. 171.

Unio modicus, Lea, pl. 24, fig. 86 204
Proc. Acad. Nat. Sci., 1857, p. 171.

Unio Roswellensis, Lea, pl. 24, fig. 87 205
Proc. Acad. Nat. Sci, 1858, p. 165.

Unio Prattii, Lea, pl. 24, figs. 88 and 88*a* 206
Proc. Acad. Nat. Sci., 1858, p. 166.

Unio spissus, Lea, pl. 25, fig. 89 208
Proc. Acad. Nat. Sci., 1859, p. 112.

Unio Chattanoogaensis, Lea, pl. 25, fig. 90 209
Proc. Acad. Nat. Sci, 1858, p. 166.

Unio Downiei, Lea, pl. 25, fig. 91 210
Proc. Acad. Nat. Sci., 1858, p. 166.

Unio Hazlehurstianus, Lea, pl. 26, fig. 92 211
Proc. Acad. Nat. Sci., 1858, p. 166.

Unio Neislerii, Lea, pl. 26, fig. 93 212
Proc. Acad. Nat. Sci., 1858, p. 165.

Unio Postellii, Lea, pl. 26, fig. 94 214
Proc. Acad. Nat. Sci., 1858, p. 165.

Unio Burkensis, Lea, pl. 27, fig. 95 215
Proc. Acad. Nat. Sci., 1859, p. 112.

Unio Satillaensis, Lea, pl. 27, fig. 96 216
Proc. Acad. Nat. Sci., 1858, p. 166.

Unio corvus, Lea, pl. 27, fig. 97 217
Proc. Acad. Nat. Sci., 1859, p. 112.

Unio compactus, Lea, pl. 28, fig. 98 218
Proc. Acad. Nat. Sci., 1859, p. 154.

Unio fibuloides, Lea, pl. 28, fig. 100 219
Proc. Acad. Nat. Sci., 1859, p. 154.

1859. LEA, ISAAC.—[illegible]

[illegible] 220
[illegible] 221
[illegible] 222
[illegible]
[illegible] 223
[illegible] 224
Margaritana margaritifera [illegible] 224
[illegible]
Margaritana Etowahensis [illegible] 226
[illegible]
Margaritana Georgiana [illegible] 227
[illegible]
Margaritana [illegible] [illegible] 228
[illegible]
Margaritana [illegible] [illegible] 229
[illegible]
Anodonta [illegible] [illegible] 230
[illegible]
Anodonta [illegible] [illegible] 231
[illegible]
Anodonta [illegible] [illegible] 232
[illegible]

160.

1859. LEA, ISAAC. Observations on the Genus Unio, together with Descriptions of New species, their Soft Parts, and Embryonic Forms, in the Family Unionidæ. Read before the Academy of Natural Sciences of Philadelphia, and published in their Journal. By Isaac Lea, LL. D., President of the Academy of Natural Sciences, Etc., Etc., with twelve plates. Vol. 7.—Part I. — Philadelphia: Printed for the author. 4to., pp. 5–51.

The separate of No. 159 and with it forms No. 171.

Presented to the Library of the Academy Natural Sciences Phila. on or before October 4, 1859.

161.

1859. LEA, ISAAC. [Change of name of *Margaritana Etowahensis* to *M. Georgiana.*] <*Proc. Acad. Nat. Sci., Phila.*, xi, p. 25. October, 1859.

Communicated to the Academy Natural Sciences October 18, 1859. Minutes of that meeting dated November 1, 1859. (See *Proc. Acad. Nat. Sci., Phila.*, xi, p. 292.)

The specific name *Etowahensis* preoccupied by Mr. Conrad.

This forms part of No. 172.

Margaritana Georgiana, Lea, n. s. 280

162.

1859. LEA, ISAAC. [Resolutions on the death of Thomas Nuttall.] <*Proc. Acad. Nat. Sci., Phila.*, xi, 1859, p. 251.

Resolutions offered October 18, 1859.

163.

1859. LEA, ISAAC. Description of a New Species of Unio from the Isthmus of Darien. <*Proc. Acad. Nat. Sci., Phila.*, xi, p. 251. October, 1859.

Read before the Academy Natural Sciences October 18, 1859, and ordered to be printed in the Proceedings October 25, 1859. Issued November 1, 1859. (See *Proc. Acad. Nat. Sci., Phila.*, xi, p. 292.) This forms part of No. 172.

Unio Averyi, Lea, n. s. 281

Isthmus of Darien, Mr. Frederick Avery, per J. G. Cooper, M. D.

Journ. Acad. Nat. Sci., iv, 1860, p. 269.

164.

1859. LEA, ISAAC. [Remarks on four species of the genus Unio, known to have a branchial uterus in each lobe of the branchia; and also on the Power of

1859. LEA, ISAAC—Continued.

Vision in the family Unionidæ.] <*Proc. Acad. Nat. Sci., Phila.*, xi, pp. 329–330. December, 1859.

Communicated December 6, 1859. This forms part of No. 172.

"We now know of four species which have this remarkable provision of a branchial uterus in each lobe or leaf of the branchia, viz:

Unio multiplicatus,
Unio rubiginosus,
Unio Kleinianus,
Unio subrotundus,

and of these, two at least have the very remarkable condition of redness of the ova, viz:

Unio rubiginosus,
Unio subrotundus."

"He found the following species always to close the anal opening, and to withdraw the papillæ of the branchial opening when the light was suddenly intercepted, viz:

Unio cylindricus, Say.
Unio rubiginosus, Lea.
Unio subrotundus, Lea.
Unio pyramidatus, Lea.
Unio obscurus, Lea.
Unio pustulosus, Lea.
Unio Æsopus, Green.
Anodonta imbecilis, Say."

165.

1859. LEA, ISAAC. Descriptions of Three New Species of Exotic Uniones. <*Proc. Acad. Nat. Sci., Phila.*, xi, p. 331. December, 1859.

Read before the Academy Natural Sciences December 6, 1859, and ordered to be published in the Proceedings December 27, 1859. This forms part of No. 172.

Unio Wynegungaensis, Lea, n. s 331
Wynegunga River, 30 miles east of Nagpoor, in the Deccan, Bengal, C. M. Wheatley.
Journ. Acad. Nat. Sci., iv, 1860, p. 271.

Unio consobrinus, Lea, n. s 331
China, C. M. Wheatley.
Journ. Acad. Nat. Sci., iv, 1860, p. 272.

Unio Nagpoorensis, Lea, n. s 331
Ambajiri Tank, Nagpoor, Bengal, C. M. Wheatley.
Journ. Acad. Nat. Sci., iv, 1860, p. 270.

166.

1860. LEA, ISAAC. [Remarks and Resolutions on the death of Augustus E. Jessup.] <*Proc. Acad. Nat. Sci.*, xii, pp. 1–2. January, 1860.

Communicated January 3, 1860. Proceedings for January laid on the table February 14, 1860. (See *Proc. Acad. Nat. Sci., Phila.*, xii, p. 54.)

167.

1860. LEA, ISAAC. [Remarks on the number of species of Unionidæ in the United States and Territories.] <*Proc. Acad. Nat. Sci., Phila.*, xii, p. 3.

Communicated January 24, 1860. Proceedings for January laid on the table February 14, 1860. (See *Proc. Acad. Nat. Sci., Phila.*, xii, p. 54.) This forms part of No. 172.

"From the list he had carefully eliminated the synonyms, and there remained in it the extraordinarily large number of five hundred and twenty species which have been described, inhabiting the Rivers, Lakes and Pools of the United States and Territories, and he stated that he had some 30 to 40 in his possession not yet named or described.

These 520 may be thus divided:

Unio	441	species.
Margaritana	26	do.
Anodonta	53	do.
	520	
New species in Mr. Lea's possession not yet described	30	
	550."	

For correction of this paper see No. 173.

168.

1859. LEA, ISAAC. Descriptions of Exotic Unionidæ. <*Journ. Acad. Nat. Sci.*; *Phila.*, iv. pp. 257–273. plates 33 to 45.

Read before the Academy of Natural Sciences December 2., 1859. Extra copies printed for the author February, 1860. See *Journ. Acad. Nat. Sci. Phila.* iv. p. 3.) For Separate see No. 169. With No. 169 forms part of No. 170.

Monocondylæa Cumingii. Lea, pl. 33, fig. 114 235
Proc. Zool. Soc. London, 1859, p. 199 as *Anodonta Cumingii*, Lea.

Anodonta rubecula. Lea, pl. 33, fig. 115 236
Proc. Zool. Soc. Lond., 1859, p. 199.

Anodonta tenuis. Lea, pl. 33, fig. 116 237
Proc. Zool. Soc. Lond., 1859, p. 199.

Anodonta crepera. Lea, pl. 34, fig. 117 238
Proc. Zool. Soc. Lond., 1859, p. 198.

Unio Sumatrensis. Lea, pl. 34, fig. 118 239
Proc. Acad. Nat. Sci., 1859, p. 153.

Anodonta gracilis. Lea, pl. 34, fig. 119 240
Proc. Zool. Soc. London, 1859, p. 197.

Unio Cumingii, Lea, pl. 35, fig. 120 240
Proc. Acad. Nat. Sci., vi. p. 54.

Unio Shanghaiensis, Lea, pl. 36, fig. 121 242
Proc. Acad. Nat. Sci., 1859, p. 153.

Unio Layarii, Lea, pl. 36, fig. 122 243
Proc. Acad. Nat. Sci., 1859, p. 153.

Unio Japanensis, Lea, pl. 36, fig. 123 244
Proc. Acad. Nat. Sci., 1859, p. 153.

Unio narigioliformis, Lea, pl. 37, fig. 124 245
Proc. Acad. Nat. Sci., 1859, p. 152.

Unio Thwaitesii, Lea, pl. 37, fig. 125 246
Proc. Acad. Nat. Sci., 1859, p. 152.

Unio plicatulus, Lea, pl. 37, fig. 126 247
Proc. Acad. Nat. Sci., 1859, p. 152.

Unio mutabilis, Lea, pl. 38, fig. 127 248
Proc. Acad. Nat. Sci., 1859, p. 152.

Unio vittatus, Lea, pl. 38, fig. 128 249
Proc. Acad. Nat. Sci., 1859, p. 153.

Unio melleus, Lea, pl. 38, fig. 129 250
Proc. Acad. Nat. Sci., 1859, p. 152.

Unio fluctiger, Lea, pl. 39, fig. 130 250
Proc. Acad. Nat. Sci., 1859, p. 152.

Unio Sikkimensis, Lea, pl. 39, fig. 131 251
Proc. Acad. Nat. Sci., 1859, p. 151.

Unio Dysonii, Lea, pl. 39, fig. 132 252
Proc. Acad. Nat. Sci., 1859, p. 152.

Unio Demeraraensis, Lea, pl. 39, fig. 133 253
Proc. Acad. Nat. Sci., 1859, p. 152, as *U. demararaensis*.

Unio diminutus, Lea, pl. 39, fig. 134 254
Proc. Acad. Nat. Sci., 1859, p. 151, as *U. diminutis*.

Unio perculcatus, Lea, pl. 40, fig. 135 255
Proc. Acad. Nat. Sci., 1859, p. 153.

Unio Rowellii, Lea, pl. 40, fig. 136 256
Proc. Acad. Nat. Sci., 1859, p. 153.

Unio Wilsonii, Lea, pl. 40, fig. 137 256
Proc. Acad. Nat. Sci., 1859, p. 153.

Unio Mauritianus, Lea, pl. 40, fig. 138 257
Proc. Acad. Nat. Sci., 1859, p. 152.

Unio Gonscoranensis, Lea, pl. 41, fig. 139 258
Proc. Acad. Nat. Sci., 1858, p. 118.

Unio scaminatus, Morelet 259

Anodonta Senegalensis, Lea, pl. 41, fig. 140 260
Proc. Acad. Nat. Sci., 1859, p. 154.

Anodonta Dahomeyensis, Lea, pl. 41, fig. 141 261
Proc. Acad. Nat. Sci., 1859, p. 154.

Monocondylæa planulata, Lea, pl. 42, fig. 142 262
Proc. Acad. Nat. Sci., 1859, p. 187.

1859. LEA, ISAAC—Continued.

Monocondylæa rhomboidea, Lea, pl. 42, fig. 143 263
Proc. Acad. Nat. Sci., 1859, p. 187.
Unio bulloides, Lea, pl. 42, fig. 144 264
Proc. Acad. Nat. Sci., 1859, p. 187.
Unio Caldwellii, Lea, pl. 43, fig. 145 265
Proc. Acad. Nat. Sci., 1858, p. 118.
Unio rudus, Lea, pl. 43, fig. 146 266
Proc. Acad. Nat. Sci., 1859, p. 187.
Anodonta luteola, Lea, pl. 43, fig. 147 267
Proc. Acad. Nat. Sci., 1858, p. 118.
Unio Canadensis, Lea, pl. 44, fig. 148 268
Proc. Acad. Nat. Sci., 1857, p. 85.
Unio Averyi, Lea, pl. 44, fig. 149 269
Proc. Acad. Nat. Sci., 1859, p. 281.
Unio Nagpoorensis, Lea, pl. 45, fig. 150 270
Proc. Acad. Nat. Sci., 1859, p. 331.
Unio Wynegungaensis, Lea, pl. 45, fig. 151 271
Proc. Acad. Nat. Sci., 1859, p. 331.
Unio consobrinus, Lea, pl. 45, fig. 152 272
Proc. Acad. Nat. Sci., 1859, p. 331.

169.

1860. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descriptions of New Species, their Soft Parts, and Embryonic Forms, in | the Family Unionidæ. | Read before the Academy of Natural Sciences of Philadelphia and | published in their Journal. | by | Isaac Lea, LL. D., | President of the Academy of Natural Sciences of Philadelphia, Etc. Etc. | with thirteen plates. | Vol. 7. | Part II. | Philadelphia: | Printed for the Author. 4to., pp. 53–91. plates 33–45.

This is the separate of No. 168, and with No. 160 forms No. 170.

170.

1860. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descriptions of New Species, their Soft Parts, and Embryonic Forms, in | the Family Unionidæ. | Read before the Academy of Natural Sciences of Philadelphia and | published in their Journal. | by | Isaac Lea, LL. D., | President of the Academy of Natural Sciences of Philadelphia, Etc. Etc. | with twenty-five plates. | Vol. 7. | Philadelphia: | Printed for the Author. 4to. pp. 93.

Presented to the Library of the Academy of Natural Sciences, Phila., on or before March 17, 1860. (See *Proc. Acad. Nat. Sci., Phila.*, xii, p. iv.)

171.

1860. LEA, ISAAC. [Remarks on abnormal shells.] <*Proc. Acad. Nat. Sci., Phila.*, xii, 1860, pp. 51–53.

Remarks made February 11, 1860. This forms part of No. 172.

"The following table will exhibit the various abnormal forms of *Uniones* in Mr. Lea's collection:

Single lateral tooth in each valve.

Unio complanatus, Lea (*Mya complanata*, Solan), Schuylkill river, Pa.
" *occidens*, Lea, Wisconsin.
" *purpuratus*, Lam., Claiborne, Ala.
" *ventricosus*, Bar., St. Lawrence, Montreal.

Single late al tooth in the left, and double in the right valve.

Unio complanatus, Lea, 2 specimens, Bristol, Pa., and Mohawk, N. Y.
" *alatus*, Say, Ohio River.
" *Hopetonensis*, Lea, Darien, Geo.
" *nasutus*, Say, Arkansas.
" *radiatus*, Lam., Petersburg, Vir.

Double lateral tooth in both valves.

1860. LEA, ISAAC—Continued.

Heterostrophe Unionidæ, | — | by | Isaac Lea, LL. D. | Pres. Acad. Nat. Sci., &c. &c. | — | Philadelphia: | Merrihew & Thompson, Printers, | Lodge St., corner of Kenton Place, | 1860. 8°. pp. 24.

This consists of Numbers 151, 152, 153, 154, 155, 156, 157, 158, 161, 163, 164, 165, 167, 171, and was presented to the Library of the Academy of Natural Sciences, Phila., on or before April 3, 1860. (See *Proc. Acad. Nat. Sci., Phila.*, xii, p. v.)

173.

1860. LEA, ISAAC. [Remarks on the number of Unionidæ of North America.] <*Proc. Acad. Nat. Sci., Phila.*, xii, p. 85.

Communicated March 13, 1860. This forms part of No. 202.

"Mr. Lea stated that when he made some remarks a few weeks since, on the *Unionidæ* of the United States, he gave the number of them incorrectly by an inadvertence. He now desired to restate them numerically:

Unio	465	species.
Margaritana	26	"
Anodonta	59	"
	550	
To these may be added new species in his cabinet not yet described	30	
	580	
And to these may be added for North America, known to inhabit Mexico, Honduras, Central America, and one in Canada, Unio	29	
Anodonta	8	
	37	
	617"	

174.

1860. LEA, ISAAC. [Remarks on letter of Dr. Lewis on the coloring matter of the nacre of Uniones.] <*Proc. Acad. Nat. Sci., Phila.*, xii, 1860, pp. 88–89.

Communicated March 20, 1860. This forms part of No. 202.

175.

1860. LEA, ISAAC. Descriptions of Four New Species of Unionidæ from Brazil and Buenos Ayres. <*Proc. Acad. Nat. Sci., Phila.*, xii, pp. 89–90.

Read before the Academy Natural Sciences March 13, 1860. Ordered to be printed in the Proceedings March 27, 1860. This forms part of No. 202.

Unio trifidus, Lea, n. s 89
Buenos Ayres, S. Amer., M. D'Orbigny.
Journ. Acad. Nat. Sci., v, 1863, p. 386.

Unio patelloides, Lea, n. s 89
Amazon river, Brazil, Capt. Geo. Brown; Rio Plata, H. Cuming.
Journ. Acad. Nat. Sci., v, 1863, p. 383.

Anodonta Amazonensis, Lea, n. s 89
Upper Amazon, Brazil, C. M. Wheatley.
Journ. Acad. Nat Sci., v, 1863, p. 395.

Anodonta Moricandii, Lea, n. s 90
Bahia, Brazil, S. Moricand, Geneva.
Journ. Acad. Nat. Sci., v, 1863, p. 396.

176.

1860. LEA, ISAAC. Descriptions of Fifteen new Species of Uruguayan Unionidæ. <*Proc. Acad. Nat. Sci., Phila.*, xii, pp. 90–92.

Read before the Academy March 13, 1860. This forms part of No. 202.

Collected on an excursion, organized by R. B. Forbes, Esq., of Boston, to the La Plata, the Uruguay, and Rio Negro rivers, in South America, and placed at the disposal of Dr. Lea, by Professor J. Wyman, who accompanied it."

Unio Wymanii, Lea, n. s 90
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci., v, 1863, p. 381.

Unio Uruguayensis, Lea, n. s 90
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci., v, 1863, p. 388.

1860. LEA, ISAAC—Continued.

Unio piger, Lea, n. s 90
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci., v, 1863, p. 387.

Unio peræformis, Lea, n. s 90
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci., v, 1863, p. 384.

Unio nocturnis, Lea, n. s 91
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci., v, 1863, p. 380.

Unio funebralis, Lea, n. s 91
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci., v, 1863, p. 378.

Unio gratus, Lea, n. s 91
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci., v, 1863, p. 382.

Unio disculus, Lea, n. s 91
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci., v, 1863, p. 385.

Unio piceus, Lea, n. s 91
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci., v, 1863, p. 379.

Unio lepidus, Lea, n. s 91
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci., v, 1863, p. 389.

Unio Æthiops, Lea, n. s 91
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci., v, 1863, p. 377.

Anodonta Wymanii, Lea, n. s 91
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci, v, 1863, p. 390.

Anodonta rubicunda, Lea, n. s 92
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci., v, 1863, p. 392.

Anodonta Forbesiana, Lea, n. s 92
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci., v, 1863, p. 393.

Anodonta Uruguayensis, Lea, n. s 92
Uruguay river, S. Amer., Prof. J. Wyman.
Journ. Acad. Nat. Sci., v, 1863, p. 393.

177.

1860. LEA, ISAAC. Descriptions of Five New Species of Uniones, from North Alabama. <*Proc. Acad. Nat. Sci., Philad.*, xii, pp. 92–93.

Read before the Academy Natural Sciences March 20, and ordered to be published in the Proceedings March 27, 1860. This forms part of No. 202.

Unio pudicus, Lea, n. s 92
North Alabama, Prof. Tuomey; and Florence, Alabama, L. B. Thornton, Esq.
Journ. Acad. Nat. Sci., iv, 1860, p. 346.

Unio camelopardilis, Lea, n. s 92
North Alabama, Prof. Tuomey.
Journ. Acad. Nat. Sci., iv, 1860, p. 355.

Unio fucatus, Lea, n. s 92
North Alabama, Prof. Tuomey; Tuscumbia, L. B. Thornton, Esq.
Journ. Acad. Nat. Sci., iv, 1860, p. 353.

Unio discrepans, Lea, n. s 92
North Alabama, Prof. Tuomey.
Journ. Acad. Nat. Sci., iv, 1860, p. 340.

Unio planicostatus, Lea, n. s 92
Tuscumbia, Alabama, L. B. Thornton, Esq.
Journ. Acad. Nat. Sci., iv, 1860, p. 354.

Unio scitulus, Lea, n. s 92
Tuscumbia, Ala., L. B. Thornton, Esq.
Journ. Acad. Nat. Sci., iv, 1860, p. 242.

178.

1860. LEA, ISAAC. Descriptions of Four New Species of Melanidæ of the United States. <*Proc. Acad. Nat. Sci., Phila.*, xii, p. 93.

Read before the Academy Natural Sciences March 20, 1860, and ordered to be printed in the Proceedings March 27, 1860. This forms part of No. 202.

Schizochilus Showalterii, Lea, n. s 93
Coosa River, Uniontown, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 246, as *Schizostoma Showalterii*.

Anculosa Showalterii, Lea, n. s 93
Coosa River, Uniontown, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 255.

Melania crenatella, Lea, n. s 93
Coosa River, Uniontown, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 268, as *Goniobasis crenatella*.

Melania Newberryi, Lea, n. s 93
Upper des Chutes River, Oregon Terr., J. S. Newberry, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 300, as *Goniobasis Newberryi*.

179.

1860. LEA, ISAAC. [Remarks on a new form of Palpi of Anodonta from the Uruguay River, S. America.] <*Proc. Acad. Nat. Sci., Phila.*, xii, p. 97.

Communicated April 10, 1860. This forms part of No. 202.

"The form of the *Palpi* heretofore described have always been obliquely or transversely elliptical or subtriangular, while these two species, *An. Wymanii*, Lea, and *An. lato-marginata*, Lea, *are round*, and the pair on either side only joined above, the edges being entirely free."

180.

1860. LEA, ISAAC. [Remarks on letter of Dr. Showalter, of Ala., on specimens of *Physa* (*gyrina*), Say, obtained in water supplied by an artesian well.] <*Proc. Acad. Nat. Sci., Phila.*, xii, p. 147.

Communicated May 8, 1860. This forms part of No. 202.

181.

1860. LEA, ISAAC. [Remarks on perforation of rocks by Echini.] <*Proc. Acad. Nat. Sci., Phila.*, xii, p. 149.

Made before the Academy of Natural Sciences May 22, 1860. This forms part of No. 202.

182.

1860. LEA, ISAAC. Descriptions of Fourteen new species of Schizostomæ, Anculosæ and Lithasiæ. <*Proc. Acad. Nat. Sci., Phila.*, xii, pp. 186–188.

Read before the Academy May 22, 1860. This forms part of No. 202.

Reasons for adopting the name Schizostoma 186

Schizostoma castanea, Lea, n. s 186
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 247.

Schizostoma glans, Lea, n. s 186
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 248.

Schizostoma globosa, Lea, n. s 187
Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 252.

Schizostoma virens, Lea, n. s 187
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 253.

Schizostoma glandula, Lea, n. s 187
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 249.

Schizostoma Wetumpkaensis, Lea, n. s 187
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 251.

1860. LEA, ISAAC—Continued.

Schizostoma Alabamensis, Lea, n. s 187
Alabama, B. W. Budd, M. D., and E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 250.

Schizostoma Hartmanii, Lea, n. s 187
Coosa River, Alab., W. D. Hartman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 247.

Schizostoma pumila, Lea, n. s 187
Alabama, B. W. Budd, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 252.

Anculosa formosa, Lea, n. s 187
Coosa River, Shelby Co., Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 254.

Anculosa contorta, Lea, n. s 187
Coosa River, at Wetumpka, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 258.

Anculosa vittata, Lea, n. s 188
Coosa River, at Wetumpka, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 256.

Lithasia Showalterii, Lea, n. s 188
Coosa River, at Wetumpka, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 262.

Lithasia nuclea, Lea, n. s 188
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 263.

183.

1860. LEA, ISAAC. Descriptions of Two New Species of Uniones from Georgia. <*Proc. Acad. Nat. Sci., Phila.*, xii, p. 305. July, 1860.

Read before the Academy Natural Sciences July 3, 1860, and ordered to be published in the Proceedings July 31, 1860. Proceedings for July laid on the table August 7, 1860. (See *Proc. Acad. Nat. Sci., Phila.*, xii, p. 325.) This forms part of No. 202.

Unio linguæformis, Lea, n. s 305
Columbus, Georgia.
Journ. Acad. Nat. Sci., iv, 1860, p. 345.

Unio dispar, Lea, n. s 305
Columbus, Georgia, Bishop Elliott and G. Hallenbeck.
Journ. Acad. Nat. Sci., iv, 1860, p. 327.

184.

1860. LEA, ISAAC. Descriptions of Three New Species of Uniones from Mexico. <*Proc. Acad. Nat. Sci., Phila.*, xii, pp. 305–306.

Read before the Academy Natural Sciences July 3, 1860, and ordered to be published in the Proceedings July 31, 1860. Proceedings for July laid on the table August 7, 1860. (See *Proc. Acad. Nat. Sci., Phila.*, xii, p. 325.) This forms part of No. 202.

Unio Couchianus, Lea, n. s 305
Rio Salado, New Leon, Mexico, L. Berlandier, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 371.

Unio Saladoensis, Lea, n. s 305
Rio Salado, New Leon, Mexico, L. Berlandier, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 370.

Unio cognatus, Lea, n. s 306
Rio Salado, New Leon, Mexico, L. Berlandier, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 368.

185.

1860. LEA, ISAAC. Descriptions of Seven New Species of Unionidæ from the United States. <*Proc. Acad. Nat. Sci., Phila.*, xii, pp. 306–307.

Presented for publishing July 3, 1860. Proceedings for July laid on the table August 7, 1860. (*Proc. Acad. Nat. Sci., Phila.*, xii, p. 325.) This forms part of No. 202.

Unio Lesleyi, Lea, n. s 306
Kentucky, Mr. Joseph Lesley; Tennessee, Mr. J. G. Anthony.
Journ. Acad. Nat. Sci., iv, 1860, p. 352.

1860. LEA, ISAAC—Continued.

Unio castus, Lea, n. s. 306
South Carolina, Prof. Tuomey.
Journ. Acad. Nat. Sci., iv, 1860, p. 349.

Unio Lindsleyi, Lea, n. s. 306
Tennessee, President J. B. Lindsley.
Journ. Acad. Nat. Sci., iv, 1860, p. 351.

Unio perpictus, Lea, n. s. 306
Bull River, Tenn., Pres't Estabrook; Holston River, Prof. Troost.
Journ. Acad. Nat. Sci., iv, 1860, p. 350.

Unio Eightsii, Lea, n. s. 306
Texas and Sabinas River, New Leon, Mexico, James Eights, M. D.
Journ. Acad. Nat. Sci., iv, 1860, p. 367.

Unio quadrans, Lea, n. s. 306
Texas, Mr. C. M. Wheatley.
Journ. Acad. Nat. Sci., iv, 1860, p. 360.

Anodonta Kennerlyi, Lea, n. s. 306
Chiloweyuch Depot, near Puget's Sound, Washington Terr., C. B. Kennerly, M. D.

186.

1860. LEA, ISAAC. Descriptions of Six New Species of Unionidæ from Alabama. <*Proc. Acad. Nat. Sci., Phila.*, xii, p. 307.

Read before the Academy of Natural Sciences July 3, 1860, and ordered to be published in the Proceedings July 31, 1860. Proceedings for July laid on the table August 7, 1860. (See *Proc. Acad. Nat. Sci., Phila.*, xii, p. 325.) This forms part of No. 202.

Unio Showalterii, Lea, n. s. 307
Coosa River, Wetumpka, Alab., E. R. Showalter, M. D.

Unio Hartmanianus, Lea, n. s. 307
Coosa River, Wetumpka, Alab., E. R. Showalter, M. D.

Unio dolosus, Lea, n. s. 307
Alabama River, Claiborne, Alab., Judge Tait; Coosa River, E. R. Showalter, M.D.

Unio parvulus, Lea, n. s. 307
Coosa River, Alab., E. R. Showalter, M. D.

Unio plancus, Lea, n. s. 307
Coosa River, at Wetumpka, Alab., E. R. Showalter, M. D.

Anodonta Showalterii, Lea, n. s. 307
Coosa River, Wetumpka, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., 1862, p. 215.

187.

1860. LEA, ISAAC. Descriptions of Three New Species of Exotic Unionidæ. <*Proc. Acad. Nat. Sci., Phila.*, xii, pp. 307–308.

Read before the Academy Natural Sciences July 3, 1860, and ordered to be published in the Proceedings July 31, 1860. Proceedings for July laid on the table August 7, 1860. (See *Proc. Acad. Nat. Sci., Phila.*, xii, p. 325.) This forms part of No. 202.

Unio occatus, Lea, n. s. 307
Bengal, W. A. Haines.
Journ. Acad. Nat. Sci., v, 1863, p. 398.

Anodonta Cailliaudii, Lea, n. s. 308
Brazil, Monr. F. Cailliaud.
Journ. Acad. Nat. Sci., v, 1863, p. 395.

Myostopus emarginatus, Lea, n. s. 308
Siam, S. R. House, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 398.

188.

1860. LEA, ISAAC. [Remark on Helix Cumberlandiana.] <*Proc. Acad. Nat. Sci., Phila.*, xii, p. 363.

Communicated Sept. 18, 1860.

Remark on letter from Bishop Elliott, of Georgia, dated University Place, Tennessee, on the occurrence of numerous living specimens of *Helix Cumberlandiana* at that place.

189.

1860. LEA, ISAAC. New Unionidæ of the United States and Northern Mexico. <*Journ. Acad. Nat. Sci., Phila.*, iv, N. Series, pp. 327–374.

Read before the Academy Natural Sciences, Phila., October 2, 1860. Extra copies printed for the author November, 1860. (See *Journ. Acad. Nat. Sci., Phila.*, iv, p. 4.) For separate, see No. 190.

Unio dispar, Lea, pl. 51, fig. 153 327
Proc. Acad. Nat. Sci., 1860, p. 305.
Unio Hallenbeckii, Lea, pl. 51, fig. 154 328
Proc. Acad. Nat. Sci., 1859, p. 170.
Unio Baldwinensis, Lea, pl. 51, fig. 155 329
Proc. Acad. Nat. Sci., 1859, p. 170.
Unio Racénsis, Lea, pl. 52, fig. 156 331
Proc. Acad. Nat. Sci., 1859, p. 171.
Unio salebrosus, Lea, pl. 52, fig. 157 332
Proc. Acad. Nat. Sci., 1859, p. 170.
Unio inusitatis, Lea, pl. 52, fig. 158 333
Proc. Acad. Nat. Sci., 1859, p. 171.
Unio latus, Lea, pl. 53, fig. 159 334
Proc. Acad. Nat. Sci., 1859, p. 171.
Unio verutus, Lea, pl. 53, fig. 160 335
Proc. Acad. Nat. Sci., 1859, p. 171.
Unio viridiradiatus, Lea, pl. 53, fig. 161 336
Proc. Acad. Nat. Sci., 1859, p. 154.
Unio viridans, Lea, pl. 54, fig. 162 337
Proc. Acad. Nat. Sci., 1859, p. 170.
Unio quadratus, Lea, pl. 54, fig. 163 338
Proc. Acad. Nat. Sci., 1859, p. 172.
Unio Jonesii, Lea, pl. 54, fig. 164 339
Proc. Acad. Nat. Sci., 1859, p. 171.
Unio discrepans, Lea, pl. 55, fig. 165 340
Proc. Acad. Nat. Sci., 1860, p. 92.
Unio virescens, Lea, pl. 55, fig. 166 341
Proc. Acad. Nat. Sci., 1858, p. 40.
Unio scitulus, Lea, pl. 55, fig. 167 342
Proc. Acad. Nat. Sci., 1860, p. 93.
Unio Johannis, Lea, pl. 55, fig. 168 343
Proc. Acad. Nat. Sci., 1859, p. 171.
Unio cacao, Lea, pl. 56, fig. 169 344
Proc. Acad. Nat. Sci., 1859, p. 154.
Unio linguæformis, Lea, pl. 56, fig. 170 345
Proc. Acad. Nat. Sci., 1860, p. 305.
Unio pudicus, Lea, pl. 56, fig. 171 346
Proc. Acad. Nat. Sci., 1860, p. 92.
Unio modicellus, Lea, pl. 57, fig. 172 347
Proc. Acad. Nat. Sci., 1859, p. 171.
Unio hepaticus, Lea, pl. 57, fig. 173 348
Proc. Acad. Nat Sci., 1859, p. 154.
Unio castus, Lea, pl. 57, fig. 174 349
Proc. Acad. Nat. Sci., 1860, p. 306.
Unio perpictus, Lea, pl. 58, fig. 175 350
Proc. Acad. Nat. Sci., 1860, p. 306.
Unio Lindsleyi, Lea, pl. 58, fig. 176 351
Proc. Acad. Nat. Sci., 1860, p. 306.
Unio Lesleyi, Lea, pl. 58, fig. 177 352
Proc. Acad. Nat. Sci., 1860, p. 306.
Unio fucatus, Lea, pl. 59, fig. 178 353
Proc. Acad. Nat. Sci., 1860, p. 92.
Unio planicostatus, Lea, pl. 59, fig. 179 354
Proc. Acad. Nat. Sci., 1860, p. 92.
Unio camelopardilis, Lea, pl. 59, fig. 180 355
Proc. Acad. Nat. Sci., 1860, p. 92.
Unio Rutersvillensis, Lea, pl. 60, fig. 181 356
Proc. Acad. Nat Sci., 1859, p. 155.
Unio Forsheyi, Lea, pl. 60, fig. 182 357
Proc. Acad. Nat. Sci., 1859, p. 155.

1860. LEA, ISAAC—Continued.

Unio Houstonensis, Lea, pl. 60, fig. 183 358
Proc. Acad. Nat. Sci., 1859, p. 155.
Unio Texasensis, Lea, pl. 61, fig. 184 359
Proc. Acad. Nat. Sci., 1857, p. 84, as *U. Texasiensis*.
Unio quadrans, Lea, pl. 61, fig. 185 360
Proc. Acad. Nat. Sci., 1860, p. 306.
Unio Bairdianus, Lea, pl. 61, fig. 186 361
Proc. Acad. Nat. Sci., 1857, p. 102.
Anodonta Lewisii, Lea, pl. 62, fig. 187 362
Proc. Acad. Nat. Sci., 1857, p. 84.
Anodonta lacustris, Lea, pl. 62, fig. 188 363
Proc. Acad. Nat. Sci., 1857, p. 84.
Anodonta modesta, Lea, pl. 63, fig. 189 364
Proc. Acad. Nat. Sci., 1857, p. 84.
Anodonta Danielsii, Lea, pl. 63, fig. 190 365
Proc. Acad. Nat. Sci., 1858, p. 139.
Anodonta Texasensis, Lea, pl. 63, fig. 191 366
Proc. Acad. Nat. Sci., 1859, p. 113.
Unio Eightsii, Lea, pl. 64, fig. 192 367
Proc. Acad. Nat. Sci., 1860, p. 306.
Unio cognatus, Lea, pl. 65, fig. 193 368
Proc. Acad. Nat. Sci., 1860, p. 306.
Unio Berlandierii, Lea, pl. 65, fig. 194 369
Proc. Acad. Nat. Sci., 1857, p. 101.
Unio Saladoensis, Lea, pl. 65, fig. 195 370
Proc. Acad. Nat. Sci., 1860, p. 305.
Unio Couchianus, Lea, pl. 66, fig. 196 371
Proc. Acad. Nat. Sci., 1860, p. 305.
Unio Popeii, Lea, pl. 66, fig. 197 372
Proc. Acad. Nat. Sci., 1857, p. 102.
Anodonta Henryana, Lea, pl. 66, fig. 198 373
Proc. Acad. Nat. Sci., 1857, p. 102, as *A. Henryiana*.

190.

1860. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descriptions of New Species, their Soft Parts, and Embryonic Forms, in | the Family Unionidæ. | Read before the Academy of Natural Sciences of Philadelphia, and | published in their Journal. | by | Isaac Lea, LL. D., | President of the Academy of Natural Sciences, Etc., Etc. | with sixteen plates. | Vol. 8.—Part I. | Philadelphia: | Printed for the Author. 4to. pp. 56.

This is the separate of No. 189, and with No. 204 forms No. 205.

191.

1860. LEA, ISAAC. Publications of Isaac Lea on Recent Conchology. 8°.

Copied from "Sabin's Bibliotheca Americana," and is probably a separate of part of "List of Amer. Writers on Recent Conchology," by Geo. W. Tryon, Jr. pp. 41–51.

192.

1861. LEA, ISAAC. Descriptions of Twenty-five New Species of Unionidæ from Georgia, Alabama, Mississippi, Tennessee and Florida. <*Proc. Acad. Nat. Sci., Phila.*, xiii, pp. 38–41.

Read before the Academy Natural Sciences February 5, 1861, and ordered to be published in the Proceedings Feb. 16, 1861. Proceedings for February laid on the table March 19, 1861. (See *Proc. Acad. Nat. Sci., Phila.*, xii, p. 56.) This forms part of No. 202.

Unio fabaceus, Lea, n. s 38
Oostanaula River, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., v, 1862, p. 90.
Unio irrasus, Lea, n. s 38
Etowah River, Georgia, Rev. G. White.
Journ. Acad. Nat. Sci., v, 1862, p. 91.
Unio Ocmulgiensis, Lea, n. s 38
Little Ocmulgee River, Lumber City, Geo., S. W. Wilson, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 95.

1861. LEA, ISAAC—Continued.

Unio cicur, Lea, n. s 39
Little Ocmulgee River, Geo., S. W. Wilson, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 93.

Unio crepulus, Lea, n. s 39
Etowah River, Geo., Rev. G. White.
Journ. Acad. Nat. Sci., vi, 1866, p. 42.

Unio Bendleianus, Lea, n. s 39
Pearl River, Jackson, Miss., Rev. E. R. Bendle.
Journ. Acad. Nat. Sci., v, 1862, p. 94.

Unio Chickasawhensis, Lea, n. s 39
Chickasawha River, Miss., W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 101.

Unio cinnamomicus, Lea, n. s 39
Tombigbee River, Columbus, Miss., W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 100.

Unio pauperculus, Lea, n. s 39
Near Columbus, Miss., W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 99.

Unio Spillmanii, Lea, n. s 39
Luxpalila Creek, near Columbus, Miss., W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 98.

Unio flavidulus, Lea, n. s 39
Near Columbus, Miss., W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 97.

Unio exaticulus, Lea, n. s 40
Near Columbus, Miss., W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 92.

Unio rubidus, Lea, n. s 40
Tombigbee river, Miss., W. Spillman, M. D.; Coosa River and Big Prairie Creek, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 95.

Unio decumbens, Lea, n. s 40
Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 87.

Unio germanus, Lea, n. s 40
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 49.

Unio Lewisii, Lea, n. s 40
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 71.

Unio medius, Lea, n. s 40
Near Uniontown, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 78.

Unio concolor, Lea, n. s 40
Big Prairie Creek, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 89.

Unio verus, Lea, n. s 40
Cahawba River, Perry Co., Ala., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 83.

Unio asperatus, Lea, n. s 41
Alabama River, Claiborne, Alab., Judge Tait.
Journ. Acad. Nat. Sci., v, 1862, p. 68.

Unio ornatus, Lea, n. s 41
Alabama? T. R. Ingalls, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 85.

Unio perpurpurens, Lea, n. s 41
Tennessee, J. G. Anthony.
Journ. Acad. Nat. Sci., vi, 1866, p. 46.

Unio Anthonyi, Lea, n. s 41
Florida, J. G. Anthony.
Journ. Acad. Nat. Sci., 1862, p. 197.

Margaritana quadrata, Lea, n. s 41
East Tennessee, President Estabrook.
Journ. Acad. Nat. Sci., v, 1862, p. 210.

1861. LEA, ISAAC—Continued.

Margaritana Alabamensis, Lea, n. s 41
Talladega Creek, Alab., W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 104.

193.

1861. LEA, ISAAC. Descriptions of new species of *Schizostoma*, *Anculosa*, and *Lithasia*. <*Proc. Acad. Nat. Sci., Phila.*, xiii, pp. 54–55.

In the minutes of the meeting of February 19, 1860 is the following:

"A paper was presented for publication, entitled 'Descriptions of new species of Anodonta and Lithasia, by Isaac Lea,' which was referred to a committee."

This probably refers to the present paper, which was ordered to be printed in the Proceedings February 26. Proceedings for February laid on the table March 19, 1861.

This forms part of No. 202. (See *Proc. Acad. Nat. Sci., Phila.*, xiii, p. 56.)

Schizostoma Spillmanii, Lea, n. s 54
Coosa River, Alab , Dr. Showalter.
Journ. Acad. Nat. Sci., v, 1863, p. 250.

Anculosa turbinata, Lea, n. s 54
North Alab., Prof. M. Tuomey and Dr. Lewis; Tuscaloosa, Dr. Budd.
Journ. Acad. Nat. Sci., v, 1863, p. 254.

Anculosa Lewisii, Lea, n. s 54
Tennessee, James Lewis, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 257.

Anculosa Coosaensis, Lea, n. s 54
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 257.

Lithasia fusiformis, Lea, n. s 54
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 261.

Lithasia imperialis, Lea, n. s 55
North Alabama, Prof. Tuomey.
Journ. Acad. Nat. Sci., v, 1863, p. 258.

Lithasia Tuomeyi, Lea, n. s 55
North Alabama, Prof. M. Tuomey.
Journ. Acad. Nat. Sci., v, 1863, p. 259.

Lithasia subglobosa, Lea, n. s 55
Tennessee, Prof. G. Troost.
Journ. Acad. Nat. Sci., v, 1863, p. 261.

Lithasia dilatata, Lea, n. s 55
Tennessee, Prof. G. Troost.
Journ. Acad. Nat. Sci., v, 1863, p. 261.

194.

1861. LEA, ISAAC. Description of a new species of *Neritina*, from Coosa River, Alabama. <*Proc. Acad. Nat. Sci., Phila.*, xiii, p. 55.

Read before the Academy Natural Sciences, February 12, 1860, and ordered to be printed in the Proceedings Feb. 26, 1860. Proceedings for February laid on the table March 19, 1861. (See *Proc. Acad. Nat. Sci., Phila.*, xiii, p. 56.)

This forms part of No. 202.

Neritina Showalteri, Lea, n. s 55
Coosa River, ten miles above Fort William, Shelby Co., Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 267.

"The discovery of this shell by Dr. Showalter marks the first notice of the genus Neritina being observed in our fresh waters."

195.

1861. LEA, ISAAC. Descriptions of two new species of *Anodontæ*, from Arctic America. <*Proc. Acad. Nat. Sci., Phila.*, xiii, p. 56.

Read before the Academy Natural Sciences, February 12, 1860, and ordered to be printed in the Proceedings February 26, 1861. Proceedings for Feb. laid on the table March 19, 1861. (See *Proc. Acad. Nat. Sci., Phila.*, xiii, p. 56.)

This forms part of No. 202.

1861. LEA, ISAAC—Continued.

Anodonta Kennicottii, Lea, n. s 56
Great Slave Lake at Fort Rae, and north end of Lake Winnipeg, Arctic America, R. Kennicott.
Journ. Acad. Nat. Sci., v, 1862, p. 214.

Anodonta Simpsoniana, Lea, n. s 56
Fort Rae, Great Slave Lake, Arctic America, R. Kennicott.
Journ. Acad. Nat. Sci., v, 1862, p. 212.

196.

1861. LEA, ISAAC. Descriptions of twelve new species of *Uniones*, from Alabama. <*Proc. Acad. Nat. Sci., Phila.*, xiii, pp. 59–60.

Read before the Academy Natural Sciences, March 5, 1860, and ordered to be published in the Proceedings March 26, 1861. Proceedings for March laid on the table April 2, 1861. (See *Proc. Acad. Nat. Sci., Phila.*, xiii, p. 73.)

This forms part of No. 202.

Unio negatus, Lea, n. s 59
Big Prairie Creek, Alab., E. R. Showalter, M. D.; Columbus, Miss., W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 76.

Unio glandaceus, Lea, n. s 59
Cahawba River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 77.

Unio instructus, Lea, n. s 59
Cahawba River, Alab., E. R. Showalter, M. D.
Journ Acad. Nat. Sci., v, 1862, p. 82.

Unio trinacrus, Lea, n. s 59
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 86.

Unio stabilis, Lea, n. s 59
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 71.

Unio consanguineus, Lea, n. s 60
Etowah River, Rev. G. White; Oostenaula River, Georgia, Bishop Elliott; Cahawba River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 67.

Unio crebrivittatus, Lea, n. s 60
Coosawattee River, Alab., Bishop Elliott.
Journ. Acad. Nat. Sci., vi, 1866, p. 43.

Unio interventus, Lea, n. s 60
Cahawba River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 84.

Unio pallidofulvus, Lea, n. s 60
Cahawba River, Alab., E. R Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 83.

Unio porphyreus, Lea, n. s 60
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 80.

Unio perpastus, Lea, n. s 60
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 69.

Unio granulatis, Lea, n. s 60
Big Prairie Creek, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 48, as *U. granulatus*.

197.

1861. LEA, ISAAC. Description of a new genus (*Strephobasis*) of the family *Melanidæ*, and three new species. <*Proc. Acad. Nat. Sci., Phila.*, xiii, p. 96.

Read before the Academy of Natural Sciences, April 16, 1860, and ordered to be published April 30, 1861. Proceedings for April laid on the table May 14, 1861. (See *Proc. Acad. Nat. Sci., Phila.*, xiii, p. 99.)

This forms part of No. 202.

STREPHOBASIS, Lea, n. g 96
Journ. Acad. Nat. Sci., v, 1863, p. 264.

1861. LEA, ISAAC—Continued.

Strephobasis Spillmanii, Lea, n. s 96
Tennessee River, Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 264.

Strephobasis cornea, Lea, n. s 96
Tennessee River, Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 265.

Strephobasis Clarkii, Lea, n. s 96
Tennessee River, at Chattanooga, Tenn., Joseph Clark.
Journ. Acad. Nat. Sci., v, 1863, p. 265.

198.

1861. LEA, ISAAC. Descriptions of forty-nine New Species of the Genus Melania. <*Proc. Acad. Nat. Sci., Phila.*, xiii, pp. 117–123.

Read before the Academy Natural Sciences May 21, 1860, and ordered to be published in the Proceedings May 28, 1861. This forms part of No. 202.

Melania Hartmaniana, Lea, n. s 117
Coosa and Cahawba Rivers, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 218, as *Goniobasis Hartmanii.*

Melania Lewisii, Lea, n. s 118
Coosa and Talapoosa Rivers, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 243, as *Goniobasis Lewisii.*

Melania elliptica, Lea, n. s 118
Coosa River, Alab., E. R. Showalter, M. D., and E. Foreman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 225, as *Goniobasis elliptica.*

Melania rubicunda, Lea, n. s 118
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 235, as *Goniobasis rubicunda.*

Melania vesicula, Lea, n. s 118
Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 242, as *Goniobasis vesicula.*

Melania Coosaensis, Lea, n. s 118
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 234, as *Goniobasis Coosaensis.*

Melania gracilior, Lea, n. s 118
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 234, as *Goniobasis ellipsoides.*

Melania propria, Lea, n. s 118
Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 229, as *Goniobasis propria.*

Melania nubila, Lea, n. s 118
Coosa River, Wetumpka, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 235, as *Goniobasis nubila.*

Melania orbicula, Lea, n. s 118
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 238, as *Goniobasis orbicula.*

Melania calculoides, Lea, n. s 118
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 238, as *Goniobasis calculoides.*

Melania punicea, Lea, n. s 119
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 232, as *Goniobasis punicea.*

Melania luteola, Lea, n. s 119
Alabama River, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 230, as *Goniobasis luteola.*

Melania fascinans, Lea, n. s 119
Yellowleaf Creek, Shelby Co., Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 229, as *Goniobasis fascinans.*

Melania quadrivittata, Lea, n. s 119
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 226, as *Goniobasis quadrivittata.*

Melania midas, Lea, n. s 119
Coosa and Alabama Rivers, near Wetumpka, E. R. Showalter.
Journ. Acad. Nat. Sci., v, 1863, p. 233, as *Goniobasis midas.*

1861. LEA, ISAAC—Continued.

Melania variata, Lea, n. s 119
Coosa River, at Wetumpka and Montevallo, Bibb Co., Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 224, as *Goniobasis variata*.

Melania virgulata, Lea, n. s 119
Coosa and Tallapoosa Rivers, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 223, as *Goniobasis virgulata*.

Melania mucronata, Lea, n. s 119
Big Prairie Creek, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 277, as *Trypanostoma mucronata*.

Melania propinqua, Lea, n. s 119
Coosa and Cahawba Rivers, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 234, as *Goniobasis propinqua*.

Melania suaris, Lea, n. s 120
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 228, as *Goniobasis suaris*.

Melania fallax, Lea, n. s 120
Coosa River, Alab., E. R. Showalter, M. D.
Journ Acad. Nat. Sci., v, 1863, p. 231, as *Goniobasis fallax*.

Melania clausa, Lea, n. s 120
Coosa River, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 231, as *Goniobasis clausa*.

Melania purpurea, Lea, n. s 120
Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 225, as *Goniobasis purpurea*.

Melania mellea, Lea, n. s 120
Coosa River, at Wetumpka, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 224, as *Goniobasis mellea*.

Melania varians, Lea, n. s 120
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 219, as *Goniobasis varians*.

Melania Showalterii, Lea, n. s 120
Coosa and Cahawba Rivers, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 220, as *Goniobasis Showalterii*.

Melania glandaria, Lea, n. s 120
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 226, as *Goniobasis glandaria*.

Melania pudica, Lea, n. s 120
Yellowleaf Creek, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 222, as *Goniobasis pudica*.

Melania Shelbyensis, Lea, n. s 121
Yellowleaf Creek, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 228, as *Goniobasis Shelbyensis*.

Melania Alabamensis, Lea, n. s 121
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 232, as *Goniobasis Alabamensis*.

Melania rara, Lea, n. s 121
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 220, as *Goniobasis rara*.

Melania bullula, Lea, n. s 121
Yellowleaf Creek, Shelby Co., Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 221, as *Goniobasis bullula*.

Melania straminea, Lea, n. s 121
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 227, as *Goniobasis straminea*.

Melania solidula, Lea, n. s 121
Yellowleaf Creek, near Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 230, as *Goniobasis solidula*.

Melania Cahawbensis, Lea, n. s 121
Cahawba River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 223, as *Goniobasis Cahawbensis*.

Melania culta, Lea, n. s 121
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 237, as *Goniobasis culta*.

1861. LEA, ISAAC—Continued.

Melania lita, Lea, n. s. 121
Cahawba River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 239, as *Goniobasis lita*.

Melania copiosa, Lea, n. s. 122
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 239, as *Goniobasis copiosa*.

Melania pergrata, Lea, n. s. 122
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 243, as *Goniobasis pergrata*.

Melania bellula, Lea, n. s. 123
Yellowleaf Creek, Shelby Co., Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 237, as *Goniobasis bellula*.

Melania æqua, Lea, n. s. 122
Yellowleaf Creek, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 240, as *Goniobasis æqua*.

Melania capillaris, Lea, n. s. 122
Coosa River, Alabama, E. R. Showalter, M. D., and Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 236, as *Goniobasis capillaris*.

Melania gratiosa, Lea, n. s. 122
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 241, as *Goniobasis gratiosa*.

Melania paula, Lea, n. s. 123
Cahawba River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 244, as *Goniobasis paula*.

Melania blanda, Lea, n. s. 122
Yellowleaf Creek, Alab., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 242, as *Goniobasis blanda*.

Melania crepera, Lea, n. s. 123
Yellowleaf Creek, Shelby Co., Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 240, as *Goniobasis crepera*.

Melania fumea, Lea, n. s. 123
Yellowleaf Creek, Shelby Co., Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 222, as *Goniobasis fumea*.

Melania propria, Lea, n. s. 123
Yellowleaf Creek, Shelby Co., Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 227, as *Goniobasis lepida*.

199.

1861. LEA, ISAAC. Descriptions of New Fossil Mollusca, from the Cretaceous Formation at Haddonfield, New Jersey. <*Proc. Acad. Nat. Sci., Phila.*, xiii, pp. 148–150.

Read before the Academy Natural Sciences June 4, 1861, and ordered to be published in the Proceedings June 25, 1861. This forms part of No. 202.

Preliminary remarks upon the Geological position of the Green Sand Formation at Haddonfield, New Jersey 148

Corbula Foulkei, Lea, n. s. 149

Modiola Juliæ, Lea, n. s. 149

Dosinia Haddonfieldensis, Lea, n. s. 149

List of Green Sand Fossils found at Haddonfield, N. J., by Mr. Foulke and Mr. Lea 43 species 150

200.

1861. LEA, ISAAC. Descriptions of Eleven New Species of the genus Unio from the United States. <*Proc. Acad. Nat. Sci., Phila.*, xiii, pp. 391–393.

Read before the Academy of Natural Sciences December 24, 1861, and ordered to be published in the Proceedings Dec. 31, 1861. This forms part of No. 202.

Unio squameus, Lea, n. s. 391
North Carolina, J. G. Anthony.
Journ. Acad. Nat. Sci., v, 1862, p. 200.

Unio rostrum, Lea, n. s. 391
Davidson Co., N. Carolina, F. A. Genth, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 201.

1861. LEA, ISAAC—Continued.

Unio contiguus, Lea, n. s 202
Stewart's Mill Dam, Union Co., N. Carolina, F. A. Genth, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 199.

Unio Riddellii, Lea, n. s 202
Dallas, Texas, Prof. C. G. Forshey.
Journ. Acad. Nat. Sci., v, 1862, p. 198.

Unio Chunii, Lea, n. s 202
Dallas, Texas, Prof. C. G. Forshey.
Journ. Acad. Nat. Sci., v, 1862, p. 196.

Unio Heermannii, Lea, n. s 202
Medina River, Texas, A. L. Heermann, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 194.

Unio tesserulæ, Lea, n. s 202
Nolachucky River, Tenn., J. G. Anthony.
Journ. Acad. Nat. Sci., vi, 1866, p. 40.

Unio Northamptonensis, Lea, n. s 202
Connecticut River, at Northampton; at Springfield, by L. Shurtleff, M. D.; below Hartford, T. R. Ingalls, M. D.; Neuse River, N. C., E. Emmons, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 190.

Unio Wardii, Lea, n. s 202
Walhonding River, Ohio, J. C. Ward; Wassepinicon River, Iowa, Dr. Foreman; Coal River, Virginia, Dr. Hartman.
Journ. Acad. Nat. Sci., v, 1862 p. 187.

Unio Sampsonii, Lea, n. s 202
Wabash River, New Harmony, Indiana, James Sampson.
Journ. Acad. Nat. Sci., v, 1862, p. 192.

Unio vestitus, Lea, n. s 202
Ogechee River, Georgia, Major Le Conte and J. G. Anthony.
Journ. Acad. Nat. Sci., v, 1862, p. 189.

201.

1861. LEA, ISAAC. Description of Seven New Species of the Genus Io. <*Proc. Acad. Nat. Sci., Phila.*, xiii, pp. 393-394.

Read before the Academy of Natural Sciences December 24, 1861, and ordered to be printed in the Proceedings Dec. 31, 1861. This forms part of No. 202.

Short outline history of the Genus Io 202

Io nodosa, Lea, n. s 202
Tennessee River, Alab., ? Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 346.

Io robusta, Lea, n. s 202
Tennessee River, Alab., ? Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 346.

Io variabilis, Lea, n. s 202
Tennessee River, Alab., ? Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 347.

Io modesta, Lea, n. s 204
Tennessee River, Alab., ? Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 348.

Io Spillmanii, Lea, n. s 204
Tennessee River, Alab., ? Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 348.

Io gracilis, Lea, n. s 204
Coosa River, Alabama, Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 349.

Io viridula, Lea, n. s 204
Coosa River, Alabama, Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 349.

202.

1862. LEA, ISAAC. Remarks on the Number of Unionidæ. | Descriptions of Fifteen new species of Uruguayan Unionidæ. | Descriptions of Four new species of Unionidæ, | from Brazil and Buenos Ayres. | Remarks on the Color of the Unionidæ. | Descriptions of Four new species of Melanias | of the United

1862. LEA, ISAAC—Continued.

States. | Descriptions of Five new species of Uniones, | from North America. | Remarks on the form of the Palpi of Anodontæ, | from Uruguay. | Remarks on the Physæ in a Cistern. | Remarks on Echinus perforating Granite. | Descriptions of Fourteen new species of Schi | zostoma, &c., and reclamation of the name. | Descriptions of two new species of Uniones, | from Georgia. | Descriptions of Three new species of Uniones, | from Mexico. | Descriptions of Seven new species of Unionidæ, | from the United States. | Descriptions of Six new species of Unionidæ, | from Alabama. | Descriptions of Three new species of Exotic Unionidæ. | Descriptions of Twenty-five new species of Unionidæ. | Description of a New Species of Neritina, | from Coosa River. | Descriptions of Two new species of Anodontæ, | from Arctic America. | Descriptions of New Species of Schizostoma, &c. | Descriptions of Twelve new species of Uniones, | from Alabama. | Description of a New Genus, (Strephobasis.) | Descriptions of Forty-nine new species of Melaniæ. | Descriptions of New Fossil Mollusca, | from New Jersey. | Descriptions of Eleven new species of the genus Unio. | Descriptions of Seven new species of the genus Io. | — | by | Isaac Lea, LL.D., &c., &c. | — | Philadelphia: | 1862. 8°, pp. 49.

This consists of a reprint of numbers 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201.

203.

1861. LEA, ISAAC. New Unionidæ of the United States. <*Journ. Acad. Nat. Sci.*, v, new series, pp. 53–109. Plates i–xviii. For separate see No. 204.

Read before the Academy of Natural Sciences November 12, 1861. Extra copies printed for the author February, 1862. (See *Journ. Acad. Nat. Sci., Phila.*, v, n. s., p. 3.)

Unio insulsus, Lea, pl. i, fig. 199 53
Proc. Acad. Nat. Sci., 1857, p. 86.

Unio Catawbensis, Lea, pl. i, fig. 200 54
Proc. Acad. Nat. Sci., 1857, p. 85, as *U. Wheatleyi*.

Unio spadiceus, Lea, pl. i, fig. 201 55
Proc. Acad. Nat. Sci., 1857, p. 86.

Unio striatulus, Lea, pl. ii, fig. 202 55
Proc. Acad. Nat. Sci., 1857, p. 86.

Unio Emmonsii, Lea, pl. ii, fig. 203 56
Proc. Acad. Nat. Sci., 1857, p. 86.

Unio Genthii, Lea, pl. 2, fig. 204 57
Proc. Acad. Nat. Sci., 1857, p. 85.

Unio gracilentus, Lea, pl. 3, fig. 205 58
Proc. Acad. Nat. Sci., 1857, p. 85.

Unio percoarctatus, Lea, pl. 3, fig. 206 59
Proc. Acad. Nat. Sci., 1857, p. 85.

Unio micans Lea, pl. 3, fig. 207 59
Proc. Acad. Nat. Sci., 1857, p. 85.

Unio Neusensis, Lea, pl. 4, fig. 208 60
Proc. Acad. Nat. Sci., 1858, p. 41.

Unio purus, Lea, pl. 4, fig. 209 61
Proc. Acad. Nat. Sci., 1858, p. 41.

Unio exactus Lea, pl. 4, fig. 210 62
Proc. Acad. Nat. Sci., 1858, p. 41.

Unio turgidulus, Lea, pl. 5, fig. 211 62
Proc. Acad. Nat. Sci., 1858, p. 40.

Unio propinquus, Lea, pl. 5, fig. 212 63
Proc. Acad. Nat. Sci., 1857, p. 83.

Unio Florentinus, Lea, pl. 5, fig. 213 64
Proc. Acad. Nat. Sci., 1857, p. 83.

Unio Meredithii, Lea, pl. 6, fig. 214 65
Proc. Acad. Nat. Sci., 1858, p. 40.

Unio perradiatus, Lea, pl. 6, fig. 215 66
Proc. Acad. Nat. Sci., 1858, p. 40.

Unio Pybasii, Lea, pl. 6, fig. 216 67
Proc. Acad. Nat. Sci., 1858, p. 40.

1861. LEA, ISAAC—Continued.

Unio consanguineus, Lea, pl. 7, fig. 217 .....
Proc. Acad. Nat. Sci., 1861, p. 60.
Unio asperatus, Lea, pl. 7, fig. 218 .....
Proc. Acad. Nat. Sci., 1861, p. 41.
Unio perpastus, Lea, pl. 7, fig. 219 .....
Proc. Acad. Nat. Sci., 1861, p. 60.
Unio Lewisii, Lea, pl. 8, fig. 220 .....
Proc. Acad. Nat. Sci., 1861, p. 40.
Unio stabilis, Lea, pl. 8, fig. 221 .....
Proc. Acad. Nat. Sci., 1861, p. 59.
Unio Hartmanianus, Lea, pl. 8, fig. 222 .....
Proc. Acad. Nat. Sci., 1860, p. 307.
Unio Showalterii, Lea, pl. 8, fig. 223 .....
Proc. Acad. Nat. Sci., 1860, p. 307.
Unio dolosus, Lea, pl. 9, fig. 224 .....
Proc. Acad. Nat. Sci., 1860, p. 307.
Unio negatus, Lea, pl. 9, fig. 225 .....
Proc. Acad. Nat. Sci., 1861, p. 59.
Unio glandacerus, Lea, pl. 9, fig. 226 .....
Proc. Acad. Nat. Sci., 1861, p. 59.
Unio medius, Lea, pl. 10, fig. 227 .....
Proc. Acad. Nat. Sci., 1861, p. 40.
Unio porphyreus, Lea, pl. 10, fig. 228 .....
Proc. Acad. Nat. Sci., 1861, p. 60.
Unio plancus, Lea, pl. 10, fig. 229 .....
Proc. Acad. Nat. Sci., 1860, p. 307.
Unio instructus, Lea, pl. 10, fig. 230 .....
Proc. Acad. Nat. Sci., 1861, p. 59.
Unio verus, Lea, pl. 11, fig. 231 .....
Proc. Acad. Nat. Sci., 1861, p. 40.
Unio pallidofulvus, Lea, pl. 11, fig. 232 .....
Proc. Acad. Nat. Sci., 1861, p. 60.
Unio interventus, Lea, pl. 11, fig. 233 .....
Proc. Acad. Nat. Sci., 1861, p. 60.
Unio ornatus, Lea, pl. 11, fig. 234 .....
Proc. Acad. Nat. Sci., 1861, p. 41.
Unio trinacrus, Lea, pl. 12, fig. 235 .....
Proc. Acad. Nat. Sci., 1861, p. 59.
Unio decumbens, Lea, pl. 12, fig. 236 .....
Proc. Acad. Nat. Sci., 1861, p. 40.
Unio concolor, Lea, pl. 12, fig. 237 .....
Proc. Acad. Nat. Sci., 1861, p. 40.
Unio fabaceus, Lea, pl. 13, fig. 238 .....
Proc. Acad. Nat. Sci., 1861, p. 38.
Unio irrasus, Lea, pl. 13, fig. 239 .....
Proc. Acad. Nat. Sci., 1861, p. 38.
Unio anaticulus, Lea, pl. 13, fig. 240 .....
Proc. Acad. Nat. Sci., 1861, p. 40.
Unio cicur, Lea, pl. 13, fig. 241 .....
Proc. Acad. Nat. Sci., 1861, p. 39.
Unio Beadleianus, Lea, pl. 14, fig. 242 .....
Proc. Acad. Nat. Sci., 1861, p. 39.
Unio Ocmulgeensis, Lea, pl. 14, fig. 243 .....
Proc. Acad. Nat. Sci., 1861, p. 38.
Unio rubidus, Lea, pl. 14, fig. 244 .....
Proc. Acad. Nat. Sci., 1861, p. 40.
Unio flavidulus, Lea, pl. 15, fig. 245 .....
Proc. Acad. Nat. Sci., 1861, p. 39.
Unio Spillmanii, Lea, pl. 15, fig. 246 .....
Proc. Acad. Nat. Sci., 1861, p. 39.
Unio pauperculus, Lea, pl. 15, fig. 247 .....
Proc. Acad. Nat. Sci. 1861, p. 39
Unio cinnamomicus, Lea, pl. 16, fig. 248 .....
Proc. Acad. Nat. Sci., 1861, p. 39.
Unio Chickasawhensis, Lea, pl. 16, fig. 250 .....
Proc. Acad. Nat. Sci., 1861, p. 39.

1861. LEA, ISAAC—Continued.

Unio permiscens, Lea, pl. 17, fig. 251 102
Proc. Acad. Nat. Sci., 1859, p. 112.

Unio curtus, Lea pl. 17, fig. 253 103
Proc. Acad. Nat. Sci., 1859, p. 112.

Margaritana Alabamensis, Lea, pl. 16, fig. 249 104
Proc. Acad. Nat. Sci., 1861, p. 41.

Margaritana Spillmanii, Lea, pl. 17, fig. 252 105
Proc. Acad. Nat. Sci., 1858, p. 138.

Margaritana elliptica, Lea, pl. 18, fig. 254 106
Proc. Acad. Nat. Sci., 1859, p. 113.

Margaritana Tombigbéensis, Lea, pl. 18, fig. 255 107
Proc. Acad. Nat. Sci., 1858, p. 138, as *M. Tombecbeensis*.

Anodonta Kennerlyi, Lea, pl. 18, fig. 256 108
Proc. Acad. Nat. Sci., 1860, p. 306.

204.

1862. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descriptions of New Species, their Soft Parts, and Embryonic Forms, in | the Family Unionidæ. | Read before the Academy of Natural Sciences of Philadelphia and | published in their Journal. | by | Isaac Lea, LL.D., | President of the Academy of Natural Sciences of Philadelphia, Etc., Etc. | with eighteen plates. | Vol. 8.—Part II. | Philadelphia: | Printed for the author. 4°, pp. 57–113.

This is the separate of No. 203, and, with No. 190, forms No. 205.

Presented to the Library of the Academy of Natural Sciences in 1862. (See *Proc. Acad. Nat. Sci.*, xiv, p. 612.)

205.

1862. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descriptions of New Species, their Soft Parts, and Embryonic Forms, in | the Family Unionidæ. | Read before the Academy of Natural Sciences of Philadelphia and | published in their Journal. | by | Isaac Lea, LL. D. | President of the Academy of Natural Sciences of Philadelphia, Etc., Etc. | with thirty-four plates. | Vol. 8. | Philadelphia: | Printed for the author. 4to, pp. 115.

This consists of numbers 190 and 204.

206.

1862. LEA, ISAAC. Descriptions of Ten new species of Unionidæ of the United States. <*Proc. Acad. Nat. Sci., Phila.*, xiv, pp. 168–169.

Read before the Academy of Natural Sciences April 22, 1862, and ordered to be printed in the Proceedings April 29, 1862. This forms part of No. 211.

Unio grandidens, Lea, n. s 168
Near Hot Springs, Ark., Byrd Powell, M. D.
Journ. Acad. Nat. Sci., 1862, p. 205.

Unio speciosus, Lea, n. s 168
Colorado River, near Lagrange, Texas, Prof. Forshey; and Leon Co., Texas, Lieut. E. F. Beale.
Journ. Acad. Nat. Sci., v, 1862, p. 207.

Unio Leibii, Lea, n. s 168
Erie Co., Michigan, G. B. Leib, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 44.

Unio Gerhardtii, Lea, n. s 168
Chattanooga, Geo., Alexander Gerhardt.
Journ. Acad. Nat. Sci., v, 1862, p. 208.

Unio Mercerii, Lea, n. s 169
Lee Co., Georgia, Dr. Mercer.
Journ. Acad. Nat. Sci., v, 1862, p. 209.

Unio Arkansasensis, Lea, n. s 169
Near Hot Springs, Ark., Byrd Powell, M. D.
Journ. Acad. Nat. Sci., v, 1862, p. 206.

Unio Bealei, Lea, n. s 169
Leon Co., Texas, Lieut. E. F. Beale, U. S. Navy; Rutersville, Texas, Prof. Forshey.
Journ. Acad. Nat. Sci., v, 1862, p. 204.

1862. LEA, ISAAC—Continued.

Anodonta leonensis, Lea, n. s. 169
Leon Co., Texas, Lieut. E. F. Beale, U. S. Navy.
Journ. Acad. Nat. Sci., vi, 1866, p. 25.

Anodonta Williamsii, Lea, n. s 169
Potomac River, at the White House below Mt. Vernon, H. C. Williams.
Journ. Acad. Nat. Sci., vi, 1866, p. 27.

Anodonta Tryonii, Lea, n. s 169
Schuylkill River, above Phila.; Delaware River, at League Island, G. W. Tryon, jr.; Flemington, Conn., Prof. Shepard; Westfield, Mass., Dr. Shurtleff; Potomac near Chain Bridge, above Washington, Prof. Henry.
Journ. Acad. Nat. Sci., vi, 1866, p. 28.

207.

1862. LEA, ISAAC. Description of a New Genus (Trypanostoma), of the Family Melanidæ, and of forty-five New Species. <*Proc. Acad. Nat. Sci., Phila.*, xiv, pp. 169–175.

Read before the Academy of Natural Sciences April 15, 1862, and ordered to be published in the Proceedings April 29, 1862. This forms part of No. 211.

TRYPANOSTOMA, Lea, n. g 169
Τρυπανον, an auger, and στόμα, a mouth.
Journ. Acad. Nat. Sci., v, 1863, p. 268.
"The genus now proposed, under the name of *Trypanostoma*, will include all the well-known *Melaniæ* with an *auger-shaped* aperture, the type of which may be considered Mr. Say's *Melania canaliculata*, a common and well-known species from the basin of the Ohio River."
"Mr. Swainson, in his 'Treatise on Malacology,' proposed a sub-genus of *Melania* under the name of *Ceriphasia*, and gives a figure, page 204 (*C. sulcata*), stating it came from Ohio. It is evident, on looking on this figure, that it does not represent any Ohio species, neither in the aperture nor in the revolving ribs. Dr. Gray and the Messrs. Adams adopt the genus, and the latter give a figure (pl. 31, fig. 6) of *canaliculata*. Say, as the type, which I do not think answers to the description or figure of Mr. Swainson."

Trypanostoma dux, Lea, n. s 170
Tennessee River, W. Spillman, M. D.; Fox River, Ill., J. Sampson; Oostenaula, Rev. G. White; Tuscumbia, B. Pybas.
Journ. Acad. Nat. Sci., v, 1863, p. 283.

Trypanostoma Thortonii, Lea, n. s 170
Tuscumbia, Ala., L. B. Thorton, Esq., and Rev. G. White; Chattanooga, Tenn., J. Clark.
Journ. Acad. Nat. Sci., v, 1863, p. 284, as *T. Thorntonii*.

Trypanostoma Troostii, Lea, n. s 171
Tenn., Prof. G. Troost; Florence, Ala., Rev. G. White; Oostenaula River, Ga., Bishop Elliott; Fox River, near New Harmony, Indiana, J. Sampson.
Journ. Acad. Nat. Sci., v, 1863, p. 285.

Trypanostoma incurvum, Lea, n. s 171
Florence, Ala., Rev. G. White.
Journ. Acad. Nat. Sci., v, 1863, p. 286.

Trypanostoma Postellii, Lea, n. s 171
Tennessee River, J. Postell; N. Ala., Prof. Tuomey.
Journ. Acad. Nat. Sci., v, 1863, p. 286.

Trypanostoma Tuomeyi, Lea, n. s 171
North Ala., Prof. Tuomey; Florence, Ala., Rev. G. White.
Journ. Acad. Nat. Sci., v, 1863, p. 287.

Trypanostoma Florencense, Lea, n. s 171
Florence, Ala., Dr. Spillman; Tuscumbia, L. B. Thornton, Esq.
Journ. Acad. Nat. Sci., v, 1863, p. 287.

Trypanostoma Clarkii, Lea, n. s 171
French, Broad, and Tellico Creeks, Tenn., J. Clark and Prof. Christy; Florence, Ala., G. White; Noxubee River, Miss., Dr. Spillman; Clinch River, Tenn., Dr. Warder; Coosa, Cahawba, and Alabama Rivers Ala., Dr. Showalter.
Journ. Acad. Nat. Sci., v, 1863, p. 285.

Trypanostoma Alabamense, Lea, n. s 171
N. Alabama, Prof. Tuomey; Florence, Ala., Rev. G. White.
Journ. Acad. Nat. Sci., v, 1863, p. 288.

1862. LEA, ISAAC—Continued.

Trypanostoma ligatum, Lea, n. s 171
Tenn., Prof. Troost; Cumberland River, C. T. Downie; North Ala., Prof. Tuomey; Ohio River, at Cincinnati, U. P. James.
Journ. Acad. Nat. Sci., v, 1863, p. 288.

Trypanostoma Pybasii, Lea, n. s 172
Tuscumbia, Ala., B. Pybas.
Journ. Acad. Nat. Sci., v, 1863, p. 289.

Trypanostoma olivaceum, Lea, n. s 172
Tombigbee River, Miss., W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 290.

Trypanostoma moniliferum, Lea, n. s 172
Tenn., Prof. Troost and Mr. Anthony; Florence, Ala., Rev. G. White, Mr. Pybas, and Mr. Thornton; Cumberland River, Dr. Powell; Ohio River, near the mouth, in Illinois, J. Donaldson; New Harmony, Indiana, Mr. Carley and Mr. Sampson; Warrior River, Ala., Prof. Brumby.
Journ. Acad. Nat. Sci., v. 1863, p. 295.

Trypanostoma Lewisii, Lea, n. s 172
Peoria, Illinois, J. Lewis, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 292.

Trypanostoma moriformi, Lea, n. s 172
Oostenaula River, near Rome, Ga., Rev. G. White; Tenn. River, Dr. Spillman; Tuscumbia, Ala., B. Pybas.
Journ. Acad. Nat. Sci., v, 1863, p. 290, as T. *moriforme*.

Trypanostoma viride, Lea, n. s 172
Tennessee, Prof. Troost.
Journ. Acad. Nat. Sci., v, 1863, p. 291.

Trypanostoma Showalterii, Lea, n. s 172
Cahawba River, Ala., E. R. Showalter, M. D.; Tuscaloosa, Ala., Dr. Budd; Oostenaula River, Ga., Rev. G. White and Bishop Elliott.
Journ. Acad. Nat. Sci., v, 1863, p. 293.

Trypanostoma Anthonyi, Lea, n. s 172
Tennessee, J. G. Anthony; Warrior River and Yellowleaf Creek, Ala., Dr. Showalter; Fox River, Indiana, J. Sampson.
Journ. Acad. Nat. Sci., v, 1863, p. 293.

Trypanostoma striatum, Lea, n. s 173
Florence, Ala., B. Pybas.
Journ. Acad. Nat. Sci., v, 1863, p. 294.

Trypanostoma Hartmeni, Lea, n. s 173
Cahawba and Coosa Rivers, Dr. Showalter; Warrior River, Ala., Knoxville, Dr. Budd and J. Clark; Tenn. River, Ala., Dr. Spillman.
Journ. Acad. Nat. Sci., v, 1863, p. 270.

Trypanostoma Jayi, Lea, n. s 173
Hab.— ——, Ala.? J. C. Jay, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 270.

Trypanostoma Spillmanii, Lea, n. s 173
Noxubee River, Miss., W. Spillman, M. D.; Tennessee, J. Clark.
Journ. Acad. Nat. Sci., v, 1863, p. 271.

Trypanostoma Chrystyi, Lea, n. s 173
Cane Creek, Tenn., Prof. D. Christy.
Journ. Acad. Nat. Sci., v, 1863, p. 272.

Trypanostoma labiatum, Lea, n. s 173
Big Miami River, Ohio, J. Clark.
Journ. Acad. Nat. Sci., v, 1863, p. 272.

Trypanostoma Whitei, Lea, n. s 173
Lafayette Co. and Marietta, Ga., Rev. G. White; Farland's Creek, Miss., Dr. Spillman; Tennessee, J. G. Anthony.
Journ. Acad. Nat. Sci., v, 1863, p. 273.

Trypanostoma Estabrookii, Lea, n. s 173
East Tennessee, President Estabrook and Bishop Elliott; near Cleveland, Tenn., Prof. Christy; Monroe Co., Tenn., J. Clark.
Journ. Acad. Nat. Sci., v, 1863, p. 273.

Trypanostoma Knoxvillense, Lea, n. s 173
Knoxville, Tenn., Pres. Estabrook.
Journ. Acad. Nat. Sci., v, 1863, p. 274.

1862. LEA, ISAAC—Continued.

Trypanostoma attenuatum, Lea, n. s 174
Lafayette, Ga., Rev. G. White; Tennessee, Dr. Hartman.
Journ. Acad. Nat. Sci., v, 1863, p. 274.

Trypanostoma subulæforme, Lea, n. s 174
Knoxville, Tenn., Prof. Troost and W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 289.

Trypanostoma tortum, Lea, n. s 174
Uchee Bar, below Columbus, Ga., J. Lewis, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 275.

Trypanostoma pallidum, Lea, n. s 174
Niagara Falls, New York.
Journ. Acad. Nat. Sci., v, 1863, p. 275.

Trypanostoma parvum, Lea, n. s 174
Knoxville, Pres. Estabrook; French Broad River, East Tenn., J. Clark.
Journ. Acad. Nat. Sci., v, 1863, p. 276.

Trypanostoma modestum, Lea, n. s 174
Chilogita Creek, Blount Co., Tenn., J. Clark.
Journ. Acad. Nat. Sci., v, 1863, p. 276.

Trypanostoma simplex, Lea, n. s 174
Cincinnati, Ohio, T. G. Lea.
Journ. Acad. Nat. Sci., v, 1863, p. 277.

Trypanostoma minor, Lea, n. s 174
Tennessee, Prof. Troost.
Journ. Acad. Nat. Sci., v, 1863, p. 278.

Trypanostoma pumilum, Lea, n. s 174
Tennessee, Prof. Troost.
Journ. Acad. Nat. Sci., v, 1863, p. 279.

Trypanostoma bivittatum, Lea, n. s 175
Tennessee, Prof. Troost.
Journ. Acad. Nat. Sci., v, 1863, p. 279.

Trypanostoma Vanuxemii, Lea, n. s 175
S. Carolina, Prof. L. Vanuxem.
Journ. Acad. Nat. Sci., v, 1863, p. 280.

Trypanostoma trivitattum, Lea, n. s 175
Tombigbee River, Miss., W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 282.

Trypanostoma trochulus, Lea, n. s 175
Holston River, Tenn., Prof. G. Troost.
Journ. Acad. Nat. Sci., v, 1863, p. 282.

Trypanostoma Sycamorense, n. s 175
Sycamore, Claiborne Co., E. Tenn., J. Lewis, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 283.

Trypanostoma Chakasahaense, Lea, n. s 175
Chakasaka River, Ala., Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 280.

Trypanostoma Tennesseense, Lea, n. s 175
Tenn., Prof. Troost; Lebanon Co., Tenn., J. M. Safford.
Journ. Acad. Nat. Sci., v, 1863, p. 281.

Trypanostoma Knoxense, Lea, n. s 175
Flat Creek, Knox Co., Tenn., Prof. D. Christy.
Journ. Acad. Nat. Sci., v, 1863, p. 281.

Trypanostoma canalitium, Lea, n. s 175
Yellowleaf Creek, Ala., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 292.

208.

1862. LEA, ISAAC. Descriptions of two new species of *Exotic Unionea* and one *Monocondylæa*. <*Proc. Acad. Nat. Sci., Phila.*, xiv, p. 176.

Read before the Academy of Natural Sciences April 22, 1862, and ordered to be published in the Proceedings April 29, 1862.

This forms part of No. 211.

Unio Paramattensis, Lea, n. s 176
Paramatta River, New South Wales. Smithsonian Institution.
Journ. Acad. Nat. Sci., vi, 1866, p. 60.

1862. LEA, ISAAC—Continued.

Unio Pazii, Lea, n. s. 176
China, Sig. Patricio Maria Paz.
Journ. Acad. Nat. Sci., vi, 1866, p. 61.

Monocondylæa Wheatleyi, Lea, n. s. 176
River Tigris, Assyria, Rev. Mr. Beadle, by C. M. Wheatley.
Journ. Acad. Nat. Sci., v, 1863, p. 399.

209.

1862. LEA, ISAAC. Description of a new genus (GONIOBASIS) of the Family *Melanidæ* and eighty-two new species. <*Proc. Acad. Nat. Sci., Phila.*, xiv, pp. 262–272.

Read before the Academy May 27, 1862. Ordered to be published in the Proceedings May 27, 1862.

This forms part of No. 211.

GONIOBASIS, Lea, n. g. 262
Γωνια, angle, and βασις, base.

List of, and key to, the Genera of American Melanidæ 263

Goniobasis osculata, Lea, n. s. 263
Coosa River, Ala., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 296.

Goniobasis Brumbyi, Lea, n. s. 263
Alabama, Prof. Brumby.
Journ. Acad. Nat. Sci., v, 1863, p. 296.

Goniobasis Grosvenorii, Lea, n. s. 263
Fox River, Illinois, H. C. Grosvenor; Quincy, Ohio, J. Clark.
Journ. Acad. Nat. Sci., v, 1863, p. 297.

Goniobasis parva, Lea, n. s. 264
Georgia, Right Rev. Stephen Elliott.
Journ. Acad. Nat. Sci., v, 1863, p. 297.

Goniobasis spinella, Lea, n. s. 264
Sycamore, Claiborne Co., Tenn., J. Lewis, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 298.

Goniobasis Estabrookii, Lea, n. s. 264
Knoxville, Tenn., Prof. Estabrook.
Journ. Acad. Nat. Sci., v, 1863, p. 298.

Goniobasis Prairiensis, Lea, n. s. 264
Big Prairie Creek, Ala., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 299.

Goniobasis Etowahensis, Lea, n. s. 264
Etowah River, Georgia, J. Postell.
Journ. Acad. Nat. Sci., v, 1863, p. 299.

Goniobasis Draytonii, Lea, n. s. 264
Fort George, Oregon, J. Drayton; also at Walla.
Journ. Acad. Nat. Sci., v, 1863, p. 300.

Goniobasis tenebrovittata, Lea, n. s. 264
Coosa River, W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 301.

Goniobasis Spillmanii, Lea, n. s. 264
Tennessee River, W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 302.

Goniobasis flava, Lea, n. s. 264
Benton County? Northwest Ala., G. Hallenbeck.
Journ. Acad. Nat. Sci., v, 1863, p. 303.

Goniobasis Anthonyi, Lea, n. s. 264
Tenn., J. G. Anthony.
Journ. Acad. Nat. Sci., v, 1863, p. 303.

Goniobasis Gabbiana, Lea, n. s. 264
Tenn., Prof. G. Troost; Alabama, Prof. Tuomey.
Journ. Acad. Nat. Sci., v, 1863, p. 304.

Goniobasis Bridgesiana, Lea, n. s. 265
Cahawba River, Ala., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 305.

Goniobasis intercedens, Lea, n. s. 265
Cahawba River, Ala., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 305.

1862. LEA, ISAAC—Continued.

Goniobasis Ohiensis, Lea, n. s 265
Yellow Springs, Ohio.
Journ. Acad. Nat. Sci., v, 1863, p. 306.

Goniobasis cinerea, Lea, n. s 265
South Carolina, Prof. L. Vanuxem.
Journ. Acad. Nat. Sci., v, 1863, p. 306.

Goniobasis Vanuxemii, Lea, n. s 265
North Fork of the Holston River, Virginia, Prof. L. Vanuxem.
Jorn. Acad. Nat. Sci., v, 1863, p. 307.

Goniobasis Spartenburgensis, Lea, n. s 265
Spartenburg District, S. Carolina, Prof. L. Vanuxem; Marietta, Ohio, Dr. Hildreth; Wabash River, Indiana, H. C. Grosvenor.
Journ. Acad. Nat. Sci., v, 1863, p. 307.

Goniobasis auricoma, Lea, n. s 265
Tennessee River, W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 308.

Goniobasis Georgiana, Lea, n. s 265
North Georgia.
Journ. Acad. Nat. Sci., v, 1863, p. 308.

Goniobasis Vauxiana, Lea, n. s 265
Coosa River, Ala., Prof. Brumby.
Journ. Acad. Nat. Sci., v, 1863, p. 309.

Goniobasis Whitei, Lea, n. s 266
Georgia, Rev. G. White.
Journ. Acad. Nat. Sci., v, 1863, p. 310.

Goniobasis Binneyiana, Lea, n. s 266
Coosa River, Ala., W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 310, as *G. Binneyana*.

Goniobasis Tuomeyi, Lea, n. s 266
N. Alabama, Prof. M. Tuomey.
Journ. Acad. Nat. Sci., v, 1863, p. 311.

Goniobasis fabalis, Lea, n. s 266
Tennessee River, W. Spillman, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 311.

Goniobasis gibberosa, Lea, n. s 266
Alabama River, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 312.

Goniobasis Lyonii, Lea, n. s 266
Grayson Co., Kentucky, S. S. Lyon.
Journ. Acad. Nat. Sci., v, 1863, p. 313.

Goniobasis Pybasii, Lea, n. s 266
Tuscumbia, Ala., B. Pybas.
Journ. Acad. Nat. Sci., v, 1863, p. 313.

Goniobasis Duttonii, Lea, n. s 266
Maurey Co., Tenn., T. R. Dutton; Grayson Co., Kentucky, S. S. Lyon.
Journ. Acad. Nat. Sci., v, 1863, p. 314.

Goniobasis Doolyensis, Lea, n. s 266
Tennessee, Prof. Troost; near Vienna, Dooly Co., Georgia, Rev. G. White.
Journ. Acad. Nat. Sci., v, 1863, p. 315.

Goniobasis Viennaensis, Lea, n. s 267
Near Vienna, Dooly Co., Geo., Rev. G. White.
Journ. Acad. Nat. Sci., v, 1863, p. 315.

Goniobasis strenua, Lea, n. s 267
Benton Co., ? Northwest Ala., G. Hallenbeck.
Journ. Acad. Nat. Sci., v, 1863, p. 316.

Goniobasis sparus, Lea, n. s 267
Tennessee, Dr. Currey and Prof. Lindsey.
Journ. Acad. Nat. Sci., v, 1863, p. 316.

Goniobasis difficilis, Lea, n. s 267
Tennessee, Dr. Edgar.
Journ. Acad. Nat. Sci., v, 1863, p. 317.

Goniobasis Bairdiana, Lea, n. s 267
Columbia River, at Fort George, Oregon, J. Drayton.
Journ. Acad. Nat. Sci., v, 1863, p. 317.

1862. LEA, ISAAC—Continued.

Goniobasis inclinans, Lea, n. s. 267
Near Albany, Georgia, Rev. G. White; Etowah, J. Postell; Tuscumbia, Ala., B. Pybas.
Journ. Acad. Nat. Sci., v, 1863, p. 318.

Goniobasis induta, Lea, n. s. 267
Near Vienna, Dooly Co., Georgia, Rev. G. White.
Journ. Acad. Nat. Sci., v, 1863, p. 319.

Goniobasis Lindsleyi, Lea, n. s. 267
Tennessee, Prof. Lindsley and Dr. Edgar.
Journ. Acad. Nat. Sci., v, 1863, p. 319.

Goniobasis Thortonii, Lea, n. s. 268
Tuscumbia, L. B. Thornton, Esq.; Florence, Ala., Rev. G. White.
Journ. Acad. Nat. Sci., v, 1863, p. 320, as *G. Thorntonii*.

Goniobasis interveniens, Lea, n. s. 268
North Alabama, Prof. Tuomey.
Journ. Acad. Nat. Sci., v, 1863, p. 320.

Goniobasis continens, Lea, n. s. 268
North Alabama, Prof. Tuomey.
Journ. Acad. Nat. Sci., v, 1863, p. 321.

Goniobasis cerea, Lea, n. s. 268
Tennessee, Prof. Troost; Duck Creek, Tenn., J. Clark.
Journ. Acad. Nat. Sci., v, 1863, p. 321.

Goniobasis viridicata, Lea, n. s. 268
Grayson Co., Kentucky, S. S. Lyon.
Journ. Acad. Nat. Sci., v, 1863, p. 322.

Goniobasis Leidyana, Lea, n. s. 268
Benton Co., Northwest Ala., G. Hallenbeck.
Journ. Acad. Nat. Sci., v, 1863, p. 322.

Goniobasis Abbevillensis, Lea, n. s. 268
Abbeville District, S. Carolina, J. P. Barratt, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 323.

Goniobasis amœna, Lea, n. s. 268
North Alabama, Prof. Tuomey.
Journ. Acad. Nat. Sci., v, 1863, p. 323.

Goniobasis paupercula, Lea, n. s. 268
North Alabama, Prof. Tuomey,
Journ. Acad. Nat. Sci., v, 1863, p. 324.

Goniobasis proletaria, Lea, n. s. 268
Florence, Ala., Rev. G. White.
Journ. Acad. Nat. Sci., v, 1863, p. 325.

Goniobasis inconstans, Lea, n. s. 269
Etowah River, J. Postell.
Journ. Acad. Nat. Sci., v, 1863, p. 325.

Goniobasis mediocris, Lea, n. s. 269
Tennessee, Dr. Edgar and Pres. Lindsey.
Journ. Acad. Nat. Sci., v, 1863, p. 326.

Goniobasis crispa, Lea, n. s. 269
Florence, Ala., Rev. G. White.
Journ. Acad. Nat. Sci., v, 1863, p. 326.

Goniobasis ornatella, Lea, n. s. 269
Tennessee, Coleman Sellers.
Journ. Acad. Nat. Sci., v, 1863, p. 326.

Goniobasis olivella, Lea, n. s. 269
Tennessee, Prof. Troost.
Journ. Acad. Nat. Sci., v, 1863, p. 327.

Goniobasis purpurella, Lea, n. s. 269
Caney-Fork River, Tenn., J. Lewis, M. D.
Journ. Acad. Nat. Sci., v, 1863, p. 327.

Goniobasis cinerella, Lea, n. s. 269
Tennessee, Coleman Sellers.
Journ. Acad. Nat. Sci., v, 1863, p. 328.

Goniobasis Christyi, Lea, n. s. 269
Valley River, Cherokee Co., N. C., Prof. David Christy.
Journ. Acad. Nat. Sci., v, 1863, p. 328.

1862. LEA, ISAAC—Continued.

Isaac Lea, LL. D. | — | Philadelphia: | Merrihew & Thompson, Printers, | Lodge St., corner of Kenton Place. | 1862. 8°. pp. 29.

This is a reprint of Nos. 206, 207, 208, 209, 210.

Presented to the Library of the Academy of Natural Sciences in 1862. (See *Proc. Acad. Nat. Sci., Phila.*, xiv, p. 612.)

212.

1862. LEA, ISAAC. Check List of the Shells of North America. Unionidæ. <Smithsonian Miscellaneous Collections. II. Part of article VI, pp. 6.

Separate 8°. pp. 6.

213.

1862. LEA, ISAAC. New Unionidæ of the United States and Arctic America. <*Journ. Acad. Nat. Sci., Phila.*, v, New Series, pp. 187–216. Plates 24–33.

Read before the Academy of Natural Sciences, Phila., June 3, 1862. Extra copies printed for the author October, 1862. (See *Journ. Acad. Nat. Sci., Phila.*, v, p. 3.) This, with No. 214, forms No. 215.

Unio Wardii, Lea, pl. 24, fig. 257 187
Proc. Acad. Nat. Sci., 1861, p. 392.

Unio Higginsii, Lea, pl. 24, fig. 258 188
Proc. Acad. Nat. Sci., 1857, p. 84.

Unio vestitus, Lea, pl. 25, fig. 259 189
Proc. Acad. Nat. Sci., 1861, p. 393.

Unio Northamptonensis, Lea, pl. 25, fig. 260 190
Proc. Acad. Nat. Sci., 1861, p. 392.

Unio Sampsonii, Lea, pl. 25, fig. 261 192
Proc. Acad. Nat. Sci., 1861, p. 392.

Unio macrodon, Lea, pl. 26, fig. 262 193
Proc. Acad. Nat. Sci., 1859, p. 154.

Unio Heermannii, Lea, pl. 26, fig. 263 194
Proc. Acad. Nat. Sci., 1861, p. 392.

Unio aureus, Lea, pl. 26, fig. 264 195
Proc. Acad. Nat. Sci., 1859, p. 112.

Unio Chunii, Lea, pl. 27, fig. 265 196
Proc. Acad. Nat. Sci., 1861, p. 392.

Unio Anthonyi, Lea, pl. 27, fig. 266 197
Proc. Acad. Nat. Sci., 1861, p. 41.

Unio Riddellii, Lea, pl. 27, fig. 267 198
Proc. Acad. Nat. Sci., 1861, p. 392.

Unio contiguus, Lea, pl. 28, fig. 268 199
Proc. Acad. Nat. Sci., 1861, p. 392.

Unio squameus, Lea, pl. 28, fig. 269 200
Proc. Acad. Nat. Sci., 1861, p. 391.

Unio rostrum, Lea, pl. 29, fig. 270 201
Proc. Acad. Nat. Sci., 1861, p. 391.

Unio macer, Lea, pl. 29, fig. 271 202
Proc. Acad. Nat. Sci, 1857, p. 86.

Unio contractus, Lea, pl. 29, fig. 272 203
Proc. Acad. Nat. Sci., 1857, p. 86.

Unio Bealei, Lea, pl. 30, fig. 273 204
Proc. Acad. Nat. Sci., 1862, p. 169.

Unio grandidens, Lea, pl. 30, fig. 274 205
Proc. Acad. Nat. Sci., 1862, p. 168.

Unio Arkansasensis, Lea, pl. 30, fig. 275 206
Proc. Acad. Nat. Sci., 1862, p. 169.

Unio speciosus, Lea, pl. 31, fig. 276 207
Proc. Acad. Nat. Sci., 1862, p. 168.

Unio Gerhardtii, Lea, pl. 31, fig. 277 208
Proc. Acad. Nat. Sci., 1862, p. 168.

Unio Mercerii, Lea, pl. 31, fig. 278 209
Proc. Acad. Nat. Sci., 1862, p. 169.

Margaritana quadrata, Lea, pl. 32, fig. 279 210
Proc. Acad. Nat. Sci., 1861, p. 41.

1862. LEA, ISAAC—Continued.

Margaritana Gesnerii, Lea, pl. 32, fig. 280 211
Proc. Acad. Nat. Sci., 1858, p. 138.
Anodonta Simpsoniana, Lea, pl. 32, fig. 281 212
Proc. Acad. Nat. Sci., 1861, p. 56.
Anodonta virgulata, Lea, pl. 33, fig. 282 213
Proc. Acad. Nat. Sci., 1857, p. 86.
Anodonta Kennicottii, Lea, pl. 33, fig. 283 214
Proc. Acad. Nat. Sci, 1861, p. 56.
Anodonta Showalterii, Lea, pl. 33, fig. 284 215
Proc. Acad. Nat. Sci., 1860, p. 307.

214.

1862. LEA, ISAAC. New Melanidæ of the United States. <*Journ. Acad. Nat. Sci.*, v, New Series, pp. 217–356, with plates, 34 to 39 inclusive.

Read before the Academy of Natural Sciences, Phila., June 3, 1862. Extra copies printed for the author March, 1863. (See *Journ. Acad. Nat. Sci., Phila.*, v, n. s., p. 3.) This, with No. 213, forms No. 215.

GONIOBASIS, Lea, n. g 217
Goniobasis Hartmanii, Lea, pl. 34, fig. 1 218
Proc. Acad. Nat. Sci., 1861, p. 117, under *Melania Hartmaniana*.
Goniobasis varians, Lea, pl. 34, fig. 2 219
Proc. Acad. Nat. Sci., 1861, p. 120, under *Melania varians*.
Goniobasis rara, Lea, pl. 34, fig. 3 220
Proc. Acad. Nat. Sci., 1861, p. 121, under *Melania rara*.
Goniobasis Showalterii, Lea, pl. 34, fig. 4 220
Proc. Acad. Nat. Sci., 1861, p. 120, under *Melania Showalterii*.
Goniobasis bullula, Lea, pl. 34, fig. 5 221
Proc. Acad. Nat. Sci., 1861, p. 121, under *Melania bullula*.
Goniobasis fumea, Lea, pl. 34, fig. 6 222
Proc. Acad Nat. Sci., 1861, p. 123, under *Melanea fumea*.
Goniobasis pudica, Lea, pl. 34, fig. 7 222
Proc. Acad. Nat. Sci., 1861, p. 120, under *Melania pudica*.
Goniobasis Cahawbensis, Lea, pl. 34, fig. 8 223
Proc. Acad. Nat. Sci., 1861, p. 121, under *Melania Cahawbensis*.
Goniobasis virgulata, Lea, pl. 34, fig. 9 223
Proc. Acad. Nat. Sci., 1861, p. 119, under *Melania virgulata*.
Goniobasis mellea, Lea, pl. 34, fig. 10 224
Proc. Acad. Nat. Sci., 1861. p. 120, *Melania mellea*.
Goniobasis variata, Lea, pl. 34, fig. 11 224
Proc. Acad. Nat. Sci, 1861, p. 119, under *Melania variata*.
Goniobasis purpurea, Lea, pl. 34, fig. 12 225
Proc. Acad. Nat. Sci., 1861, p. 120, under *Melanea purpurea*.
Goniobasis elliptica, Lea, pl. 34, fig. 13 225
Proc. Acad. Nat. Sci., 1861, p. 118, under *Melania elliptica*.
Goniobasis glandaria, Lea, pl. 34, fig. 14 226
Proc. Acad. Nat. Sci., 1861, p. 120, under *Melania glandaria*.
Goniobasis quadrivittata, Lea, pl. 34, fig. 15 226
Proc. Acad. Nat. Sci., 1861, p. 119, under *Melania quadrivittata*.
Goniobasis straminea, Lea, pl. 34, fig. 16 227
Proc. Acad. Nat. Sci., 1861, p. 121, under *Melania straminea*.
Goniobasis lepida, Lea, pl. 34, fig. 17 227
Proc. Acad. Nat. Sci., 1861, p. 123, as *Melania propria*.
Goniobasis Shelbyensis, Lea, pl. 34, fig. 18 228
Proc. Acad. Nat. Sci., 1861, p. 121, under *Melania Shelbyensis*.
Goniobasis suavis, Lea, pl. 34, fig. 19 228
Proc. Acad. Nat. Sci., 1861, p. 120, under *Melania suavis*.
Goniobasis fascinans, Lea, pl. 34, fig. 20 229
Proc. Acad. Nat. Sci., 1861, p. 119, as *Melania fascinans*.
Goniobasis propria, Lea, pl. 34, fig. 21 229
Proc. Acad. Nat. Sci., 1861, p. 118, as *Melania propria*.
Goniobasis luteola, Lea, pl. 34, fig. 22 230
Proc. Acad. Nat. Sci., 1861, p. 119, as *Melania luteola*.
Goniobasis solidula, Lea, pl. 34, fig. 23 230
Proc. Acad. Nat. Sci., 1861, p. 121, as *Melania solidula*.

1862. LEA, ISAAC—Continued.

Goniobasis fallax, Lea, pl 34, fig. 24 221
Proc. Acad. Nat. Sci., 1861, p. 120, as *Melania fallax*.
Goniobasis clausa, Lea, pl. 34, fig. 25 221
Proc. Acad. Nat. Sci., 1861, p. 120, as *Melania clausa*.
Goniobasis Alabamensis, Lea, pl. 34, fig. 26 221
Proc. Acad. Nat. Sci., 1861, p. 121, as *Melania Alabamensis*.
Goniobasis punicea, Lea, pl. 34, fig. 27 221
Proc. Acad. Nat. Sci., 1861, p. 119, as *Melanea punicea*.
Goniobasis midas, Lea, pl. 34, fig. 28 221
Proc. Acad. Nat. Sci., 1861, p. 119, as *Melanea midas*.
Goniobasis propinqua, Lea, pl. 34, fig. 29 221
Proc. Acad. Nat. Sci., 1861, p. 119, as *Melania propinqua*.
Goniobasis Coosaensis, Lae, pl. 34, fig. 30 2
Proc. Acad. Nat. Sci., 1861, p. 118, as *Melania Coosaensis*.
Goniobasis ellipsoides, Lea, pl. 34, fig. 31 2
Proc. Acad. Nat. Sci., 1861, p, 118, as *Melania gracilior*.
Goniobasis rubicunda, Lea, pl. 34, fig. 32 2
Proc. Acad. Nat. Sci., 1861, p. 118, as *Melania rubicunda*.
Goniobasis nubila, Lea, pl. 34, fig. 33 2
Proc. Acad. Nat. Sci., 1861, p. 118, as *Melania nubila*.
Goniobasis capillaris, Lea, pl. 34, fig. 34 2
Proc. Acad. Nat. Sci., 1861, p. 122, as *Melania capillaris*.
Goniobasis bellula, Lea, pl. 34, fig. 35 2
Proc. Acad. Nat. Sci., 1861, p. 122, as *Melania bellula*.
Goniobasis culta, Lea, pl. 34, fig. 36 2
Proc. Acad. Nat. Sci., 1861, p. 121, as *Melania culta*.
Goniobasis orbicula, Lea, pl. 34, fig. 37 2
Proc. Acad. Nat. Sci., 1861, p. 118, as *Melania orbicula*.
Goniobasis calculoides, Lea, pl. 34, fig. 38 2
Proc. Acad. Nat. Sci., 1861, p 118, as *Melania calculoides*.
Goniobasis copiosa, Lea, pl. 34, fig. 39 2
Proc. Acad. Nat. Sci., 1861, p. 122, as *Melania copiosa*.
Goniobasis lita, Lea, pl. 34, fig. 40 2
Proc. Acad. Nat. Sci., 1861, p. 121, as *Melania lita*.
Goniobasis æqua, Lea, pl. 34, fig. 41 2
Proc. Acad. Nat. Sci., 1861, p. 122, as *Melania æqua*.
Goniobasis crepera, Lea, pl. 34, fig. 42 2
Proc. Acad. Nat. Sci., 1861, p. 123, as *Melania crepera*.
Goniobasis gratiosa, Lea, pl. 35, fig. 43 2
Proc. Acad. Nat. Sci., 1861, p. 122, as *Melania gratiosa*.
Goniobasis blanda, Lea, pl. 35, fig. 44 2
Proc. Acad. Nat. Sci, 1861, p. 122, as *Melania blanda*.
Goniobasis vesicula, Lea, pl. 35, fig. 45 2
Proc. Acad. Nat. Sci., 1861, p. 118, as *Melania vesicula*.
Goniobasis Lewisii, Lea, pl. 35, fig. 46 2
Proc. Acad. Nat. Sci., 1861, p. 118, as *Melania Lewisii*.
Goniobasis pergrata, Lea, pl. 35, fig. 47 2
Proc. Acad. Nat. Sci., 1861, p. 122, as *Melania pergrata*.
Goniobasis paula, Lea, pl. 35, fig. 48 2
Proc. Acad. Nat. Sci., 1861, p. 122, as *Melania paula*.
Genus SCHIZOSTOMA, Lea 2
Schizostoma Showalterii, Lea, pl. 35, fig. 49 2
Proc. Acad. Nat. Sci., 1860, p. 93, as *Schizochilus Showalterii*.
Schizostoma castaneum, Lea, pl. 35, fig. 50 2
Proc. Acad. Nat. Sci., 1860, p. 186.
Schizostoma Hartmanii, Lea, pl. 35, fig. 51 2
Proc. Acad. Nat. Sci., 1860, p. 187.
Schizostoma glans, Lea, pl 35, fig. 52 2
Proc. Acad. Nat. Sci., 1860, p. 186.
Schizostoma glandula, Lea, pl. 35, fig. 53 2
Proc. Acad. Nat. Sci., 1860, p. 187.
Schizostoma Alabamense, Lea, pl. 35, fig. 54 2
Proc. Acad Nat. Sci, 1860, p. 187.
Schizostoma Spillmanii, Lea, pl. 35, fig. 55 2
Proc. Acad. Nat. Sci., 1861, p. 54.

1862. LEA, ISAAC—Continued.

Schizostoma Wetumpkaense, Lea, pl. 35, fig. 56 251
Proc. Acad. Nat. Sci., 1860, p. 187.
Schizostoma pumilum, Lea, pl. 35, fig. 57 252
Proc. Acad. Nat. Sci., 1860, p. 187.
Schizostoma globosum, Lea, pl. 35, fig. 58 252
Proc. Acad. Nat. Sci., 1860, p. 187.
Schizostoma virens, Lea, pl. 35, fig. 59 253
Proc. Acad. Nat. Sci., 1860, p. 187.
Anculosa turbinata, Lea, pl. 35, fig. 60 254
Proc. Acad. Nat. Sci., 1861, p. 54.
Anculosa formosa, Lea, pl. 35, fig. 61 254
Proc. Acad. Nat. Sci., 1860, p. 187.
Anculosa Showalterii, Lea, pl. 35, fig. 62 255
Proc. Acad. Nat. Sci., 1860, p. 93.
Anculosa vittata, Lea, pl. 35, fig. 63 256
Proc. Acad. Nat. Sci., 1860, p. 188.
Anculosa Lewisii, Lea, pl. 35, fig. 64 257
Proc. Acad. Nat. Sci., 1861, p. 54.
Anculosa Coosaensis, Lea, pl. 35, fig. 65 257
Proc. Acad. Nat. Sci., 1861, p. 54.
Anculosa contorta, Lea, pl. 35, fig. 66 258
Proc. Acad. Nat. Sci., 1860, p. 187.
Lithasia imperialis, Lea, pl. 35, fig. 67 258
Proc. Acad. Nat. Sci., 1861, p. 55.
Lithasia Tuomeyi, Lea, pl. 35, fig. 68 259
Proc. Acad. Nat. Sci., 1861, p. 55.
Lithasia dilatata, Lea, pl. 35, fig. 69 260
Proc. Acad. Nat. Sci., 1861, p. 55.
Lithasia subglobosa, Lea, pl. 35, fig. 70 261
Proc. Acad. Nat. Sci., 1861, p. 55.
Lithasia fusiformis, Lea, pl. 35, fig. 71 261
Proc. Acad. Nat. Sci., 1861, p. 54.
Lithasia Showalterii, Lea, pl. 35, fig. 72 262
Proc. Acad. Nat. Sci., 1860, p. 188.
Lithasia nuclea, Lea, p. 35, fig. 73 263
Proc. Acad. Nat. Sci., 1860, p. 188.
Genus STREPHOBASIS, Lea, n. g 264
Proc. Acad. Nat. Sci., 1861, p. 96.
Strephobasis Spillmanii, Lea, pl. 35, fig. 74 264
Proc. Acad. Nat. Sci., 1861, p. 96.
Strephobasis cornea, Lea, pl. 35, fig. 75 265
Proc. Acad. Nat. Sci., 1861, p. 96.
Strephobasis Clarkii, Lea, pl. 35, fig. 76 265
Proc. Acad. Nat. Sci., 1861, p. 96.
Strephobasis solida, Lea, pl. 35, fig. 77 266
Trans. Amer. Philos. Soc., vol. x, pl. 9, fig. 27, as *Melania solida*, Lea.
Neritina Showalterii, Lea, pl. 35, fig. 78, 78a 267
Proc. Acad. Nat. Sci., 1861, p. 55.
Goniobasis crenatella, Lea, pl. 35, fig. 79 268
Proc. Acad. Nat. Sci., 1860, p. 93, as *Melania crenatella*.
Genus TRYPANOSTOMA, Lea 268
Proc. Acad. Nat. Sci., v, 1862, p. 169.
Trypanostoma Hartmanii, Lea, pl. 36, fig. 80 270
Proc. Acad. Nat. Sci., 1862, p. 173.
Trypanostoma Jayi, Lea, pl. 36, fig. 81 270
Proc. Acad. Nat. Sci., 1862, p. 173.
Trypanostoma Spillmanii, Lea, pl. 36, fig. 82 271
Proc. Acad. Nat. Sci., 1862, p. 173.
Trypanostoma Christyi, Lea, pl. 36, fig. 83 272
Proc. Acad. Nat. Sci., 1862, p. 173.
Trypanostoma labiatum, Lea, pl. 36, fig. 84 272
Proc. Acad. Nat. Sci., 1862, p. 173.
Trypanostoma Whitei, Lea, pl. 36, fig. 85 273
Proc. Acad. Nat. Sci., 1862, p. 173.

1862. LEA, ISAAC—Continued.

Trypanostoma Estabrookii, Lea, pl. 36, fig. 86.....
Proc. Acad. Nat. Sci., 1862, p. 173.
Trypanostoma Knoxvillense, Lea, pl. 36, fig. 87.....
Proc. Acad. Nat. Sci., 1862, p. 173.
Trypanostoma attenuatum, Lea, pl. 36, fig. 88.....
Proc. Acad. Nat. Sci., 1862, p. 174.
Trypanostoma tortum, Lea, pl. 36, fig. 89.....
Proc. Acad. Nat. Sci., 1862, p. 174.
Trypanostoma pallidum, Lea, pl. 36, fig. 90.....
Proc. Acad. Nat. Sci., 1862, p. 174.
Trypanostoma parvum, Lea, pl. 36, fig. 91.....
Proc. Acad. Nat. Sci., 1862, p. 174.
Trypanostoma modestum, Lea, pl. 36, fig. 92.....
Proc. Acad. Nat. Sci., 1862, p. 174.
Trypanostoma mucronatum, Lea, pl. 36, fig. 93.....
Proc. Acad. Nat. Sci., 1861, p. 119, as *Melania mucronata*.
Trypanostoma simplex, Lea, pl. 36, fig. 94.....
Proc. Acad. Nat. Sci., 1862, p. 174.
Trypanostoma minor, Lea, pl. 36, fig. 95.....
Proc. Acad. Nat. Sci., 1862, p. 174.
Trypanostoma pumilum, Lea, pl. 36, fig. 96.....
Proc. Acad. Nat. Sci., 1862, p. 174.
Trypanostoma bivittatum, Lea, pl. 36, fig. 97.....
Proc. Acad. Nat. Sci., 1862, p. 175.
Trypanostoma Vanuxemii, Lea, pl. 36, fig. 98.....
Proc. Acad. Nat. Sci 1862, p. 175.
Trypanostoma Chakasahaense, Lea, pl. 36, fig. 99.....
Proc. Acad. Nat. Sci., 1862, p. 175.
Trypanostoma Tennesseense, Lea, pl. 36, fig. 100.....
Proc. Acad. Nat. Sci., 1862, p. 175.
Trypanostoma Knoxense, Lea, pl. 36, fig. 101.....
Proc. Acad. Nat. Sci., 1862, p. 175.
Trypanostoma trivittatum, Lea, pl. 36, fig. 102.....
Proc. Acad. Nat. Sci., 1862, p. 175.
Trypanostoma trochulus, Lea, pl. 36, fig. 103.....
Proc. Acad. Nat. Sci., 1862, p. 175.
Trypanostoma Sycamorense, Lea, pl. 36, fig. 104.....
Proc. Acad. Nat. Sci., 1862, p. 175.
Trypanostoma dux, Lea, pl. 36, fig. 105.....
Proc. Acad. Nat. Sci., 1862, p. 170.
Trypanostoma Thorntonii, Lea, pl. 36, fig. 106.....
Proc. Acad. Nat. Sci., 1862, p. 170, as *F. Thortonii*.
Trypanostoma Troostii, Lea, pl. 36, fig. 107.....
Proc. Acad. Nat. Sci., 1862, p. 171.
Tryponostoma Clarkii, Lea, pl. 36, fig. 108.....
Proc. Acad. Nat. Sci., 1862, p. 171.
Trypanostoma incurvum, Lea, pl. 36, fig. 109.....
Proc. Acad. Nat. Sci., 1862, p. 171.
Trypanostoma Postellii, Lea, pl. 36, fig. 110.....
Proc. Acad. Nat. Sci. 1862, p. 171.
Trypanostoma Tuomeyi, Lea, pl. 36, fig. 111.....
Proc. Acad. Nat. Sci., 1862, p. 171.
Trypanostoma Florencense, Lea, pl. 36, fig. 112.....
Proc. Acad. Nat. Sci., 1862, p. 171.
Trypanostoma Alabamense, Lea, pl. 36, fig. 113.....
Proc. Acad. Nat. Sci. 1862, p. 171.
Trypanostoma ligatum, Lea, pl. 36, fig. 114.....
Proc. Acad. Nat. Sci., 1862, p. 171.
Trypanostoma Pybasii, Lea, pl. 36, fig. 115.....
Proc. Acad. Nat. Sci., 1862, p. 172.
Trypanostoma subulaeforme, Lea, pl. 36, fig. 116.....
Proc. Acad. Nat Sci., 1862, p. 174.
Trypanostoma olivaceum, Lea, pl. 36, fig. 117.....
Proc. Acad. Nat. Sci., 1862, p. 172.
Trypanostoma moriforme, Lea, pl. 35, fig. 118.....
Proc. Acad. Nat. Sci., 1862, p. 172, as *T. moriformi*.

1862. LEA, ISAAC—Continued.

Trypanostoma viride, Lea, pl. 36, fig. 119 291
Proc. Acad. Nat. Sci., 1862, p. 172.
Trypanostoma Lewisii, Lea, pl. 36, fig. 120 292
Proc. Acad. Nat. Sci., 1862, p. 172.
Trypanostoma canalitium, Lea, pl. 36, fig. 121 292
Proc. Acad. Nat. Sci., 1862, p. 175.
Trypanostoma Showalterii, Lea, pl. 36, fig. 122 293
Proc. Acad. Nat. Sci., 1862, p. 172.
Trypanostoma Anthonyi, Lea, pl. 36, fig. 123 293
Proc. Acad. Nat. Sci., 1862, p. 172.
Trypanostoma striatum, Lea, pl. 36, fig. 124 294
Proc. Acad. Nat. Sci., 1862, p. 173.
Trypanostoma moniliferum, Lea, pl. 36, fig. 125 295
Proc. Acad. Nat. Sci., 1862, p. 172.
Goniobasis osculata, Lea, pl. 37 fig. 126 296
Proc. Acad. Nat. Sci., 1862, p. 263.
Goniobasis Brumbyi, Lea, pl. 37, fig. 127 296
Proc. Acad. Nat. Sci., 1862, p. 263.
Goniobasis Grosvenorii, Lea, pl. 37 fig. 128 297
Proc. Acad. Nat. Sci., 1862, p. 263.
Goniobasis parva, Lea, pl. 37. fig. 129 297
Proc. Acad. Nat. Sci., 1862, p. 264.
Goniobasis spinella, Lea, pl. 37. fig. 130 298
Proc. Acad. Nat. Sci., 1862, p. 264.
Goniobasis Estabrookii, Lea, pl. 37, fig. 131 298
Proc. Acad. Nat. Sci., 1862, p. 264.
Goniobasis Prairiensis, Lea, pl. 37, fig. 132 299
Proc. Acad. Nat. Sci., 1862, p. 264.
Goniobasis Etowahensis, Lea, pl. 37, fig. 133 299
Proc. Acad. Nat. Sci., 1862, p. 264.
Goniobasis Draytonii, Lea, pl. 37, fig. 134 300
Proc. Acad. Nat. Sci., 1862, p. 264.
Goniobasis Newberryi, Lea, pl. 37, fig. 135 300
Proc. Acad. Nat. Sci., 1860, p. 93.
Goniobasis tenebrovittata, Lea, pl. 37, fig. 136 301
Proc. Acad. Nat. Sci., 1862, p. 264.
Goniobasis nigrina, Lea, pl. 37, fig. 137 302
Proc. Acad. Nat. Sci., 1856, p. 80, as *Melania nigrina*.
Goniobasis Spillmanii, Lea, pl. 37 fig. 138 302
Proc. Acad. Nat. Sci., 1862, p. 264.
Goniobasis flava, Lea, pl. 37 fig. 139 303
Proc. Acad. Nat. Sci., 1862, p. 264.
Goniobasis Anthonyi, Lea, pl. 37, fig. 140 303
Proc. Acad. Nat. Sci., 1862, p. 264.
Goniobasis Gabbiana, Lea, pl. 37, fig. 141 306
Proc. Acad. Nat. Sci., 1862, p. 265.
Goniobasis Bridgesiana, Lea, pl. 37, fig. 142 305
Proc. Acad. Nat. Sci., 1862, p. 265.
Goniobasis intercedens, Lea, pl. 37, fig. 143 305
Proc. Acad. Nat. Sci., 1862, p. 265.
Goniobasis Ohioensis, Lea, pl. 37, fig. 144 306
Proc. Acad. Nat. Sci., 1862, p. 265, as *G. Ohiensis*.
Goniobasis cinerea, Lea, pl. 37, fig. 145 306
Proc. Acad. Nat. Sci., 1862, p. 265.
Goniobasis Vanuxemii, Lea, pl. 37, fig. 146 304
Proc. Acad. Nat. Sci., 1862, p. 265.
Goniobasis Spartanburgensis, Lea, pl. 37 fig. 147 307
Proc. Acad. Nat. Sci., 1862, p. 265.
Goniobasis auricoma, Lea, pl. 37. fig. 148 308
Proc. Acad. Nat. Sci., 1862, p. 265.
Goniobasis Georgiana, Lea, pl. 37, fig. 149 307
Proc. Acad. Nat. Sci., 1862, p. 265.
Goniobasis Vauxiana, Lea, pl. 37. fig. 150 309
Proc. Acad. Nat. Sci., 1862, p. 265.
Goniobasis Whitei, Lea, pl. 37, fig. 151 310
Proc. Acad. Nat. Sci., 1862, p. 266.

1862. LEA, ISAAC—Continued.

Goniobasis Binneyana, Lea, pl. 37, fig. 152.....
Proc. Acad. Nat. Sci., 1862, p. 266, as *G. Binneyiana*.
Goniobasis Tuomeyi, Lea, pl. 37, fig. 153.....
Proc. Acad. Nat. Sci., 1862, p. 266.
Goniobasis fabalis, Lea, pl. 37, fig. 154.....
Proc. Acad. Nat. Sci., 1862, p. 266.
Goniobasis gibberosa, Lea, pl. 37, fig. 155.....
Proc. Acad. Nat. Sci., 1862, p. 266.
Goniobasis Lyonii, Lea, pl. 37, fig. 156.....
Proc. Acad. Nat. Sci., 1862, p. 266.
Goniobasis Pybasii, Lea, pl. 37, fig. 157.....
Proc. Acad. Nat. Sci., 1862, p. 266.
Goniobasis Duttonii, Lea, pl. 37, fig. 158.....
Proc. Acad. Nat. Sci., 1862, p. 266.
Goniobasis Doolyensis, Lea, pl. 37, fig. 159.....
Proc. Acad. Nat. Sci., 1862, p. 266.
Goniobasis Viennaensis, Lea, pl. 37, fig. 160.....
Proc. Acad. Nat. Sci., 1862, p. 267.
Goniobasis strenua, Lea, pl. 37, fig. 161.....
Proc. Acad. Nat. Sci., 1862, p. 267.
Goniobasis sparus, Lea, pl. 37, fig. 162.....
Proc. Acad. Nat. Sci., 1862, p. 267.
Goniobasis difficilis, Lea, pl. 37, fig. 163.....
Proc. Acad. Nat. Sci., 1862, p. 267.
Goniobasis Bairdiana, Lea, pl. 37, fig. 164.....
Proc. Acad. Nat. Sci., 1862, p. 267.
Goniobasis inclinans, Lea, pl. 37, fig. 165.....
Proc. Acad. Nat. Sci., 1862, p. 267.
Goniobasis induta, Lea, pl. 37, fig. 166.....
Proc. Acad. Nat. Sci., 1862, p. 267.
Goniobasis Lindsleyi, Lea, pl. 37, fig. 167.....
Proc. Acad. Nat. Sci., 1862, p. 267.
Goniobasis Thorntonii, Lea, pl. 38, fig. 168.....
Proc. Acad. Nat. Sci., 1862, p. 268, as *G. Thortonii*.
Goniobasis interveniens, Lea, pl. 38, fig. 169.....
Proc. Acad. Nat. Sci., 1862, p. 268.
Goniobasis continens, Lea, pl. 38, fig. 170.....
Proc. Acad. Nat. Sci., 1862, p. 268.
Goniobasis cerea, Lea, pl. 38, fig. 171.....
Proc. Acad. Nat. Sci., 1862, p. 268.
Goniobasis viridicata, Lea, pl. 38, fig. 172.....
Proc. Acad. Nat. Sci., 1862, p. 268.
Goniobasis Leidyana, Lea, pl. 38, fig. 173.....
Proc. Acad. Nat. Sci., 1862, p. 268.
Goniobasis Abbevillensis, Lea, pl. 38, fig. 174.....
Proc. Acad. Nat. Sci., 1862, p. 268.
Goniobasis amœna, Lea, pl. 38, fig. 175.....
Proc. Acad. Nat. Sci., 1862, p. 268.
Goniobasis paupercula, Lea, pl. 38, fig. 176.....
Proc. Acad. Nat. Sci., 1862, p. 268.
Goniobasis proletaria, Lea, pl. 38, fig. 177.....
Proc. Acad. Nat. Sci., 1862, p. 268.
Goniobasis inconstans, Lea, pl. 38, fig. 178.....
Proc. Acad. Nat. Sci., 1862, p. 269.
Goniobasis mediocris, Lea, pl. 38, fig. 179.....
Proc. Acad. Nat. Sci., 1862, p. 269.
Goniobasis crispa, Lea, pl. 38, fig. 180.....
Proc. Acad. Nat. Sci., 1862, p. 269.
Goniobasis ornatella, Lea, pl. 38, fig. 181.....
Proc. Acad. Nat. Sci., 1862, p. 269.
Goniobasis olivella, Lea, pl. 38, fig. 182.....
Proc. Acad. Nat. Sci., 1862, p. 269.
Goniobasis purpurella, Lea, pl. 38, 183.....
Proc. Acad. Nat. Sci., 1862, p. 269.
Goniobasis cinerella, Lea, pl. 38, fig. 184.....
Proc. Acad. Nat. Sci., 1862, p. 269,

1862. LEA, ISAAC—Continued.

Goniobasis Christyi, Lea, pl. 38. fig. 185 328
Proc. Acad. Nat. Sci., 1862, p. 269.
Goniobasis instabilis, Lea, pl. 38, fig. 186 329
Proc. Acad. Nat. Sci., 1862, p. 269.
Goniobasis Gerhardtii, Lea, pl. 38, fig. 187 330
Proc. Acad. Nat. Sci., 1862, p. 270.
Goniobasis infuscata, Lea, pl. 38, fig. 188 330
Proc. Acad. Nat. Sci., 1862, p. 270.
Goniobasis mutabilis, Lea, pl. 38, fig. 189 331
Proc. Acad. Nat. Sci., 1862, p. 270.
Goniobasis cruda, Lea, pl. 38, fig. 190 332
Proc. Acad. Nat. Sci., 1862, p. 270.
Goniobasis rubella, Lea, pl. 38, fig. 191 332
Proc. Acad. Nat. Sci., 1862, p. 270.
Goniobasis macella, Lea, pl. 38, fig. 192 333
Proc. Acad. Nat. Sci., 1862, p. 270.
Goniobasis rubiginosa, Lea, pl. 38, fig. 193 333
Proc. Acad. Nat. Sci., 1862, p. 270.
Goniobasis Ucheensis, Lea, pl. 38, fig. 194 334
Proc. Acad. Nat. Sci., 1862, p. 270.
Goniobasis inosculata, Lea, pl. 38, fig. 195 334
Proc. Acad. Nat. Sci., 1862, p. 270.
Goniobasis Barrattii, Lea, pl. 38, fig. 196 335
Proc. Acad. Nat. Sci., 1862, p. 271.
Goniobasis rubricata, Lea, pl. 38, fig. 197 335
Proc. Acad. Nat. Sci., 1862, p. 271.
Goniobasis Bentoniensis, Lea, pl. 38, fig. 198 336
Proc. Acad. Nat. Sci., 1862, p. 271.
Goniobasis Shastaensis, Lea, pl. 38, fig. 199 337
Proc. Acad. Nat. Sci., 1856, p. 80, as *Melania Shastaensis*.
Goniobasis negata, Lea, pl. 38, fig. 200 337
Proc. Acad. Nat. Sci., 1862, p. 271.
Goniobasis Elliottii, Lea, pl. 38, fig. 201 338
Proc. Acad. Nat. Sci., 1862, p. 271.
Goniobasis flavescens. Lea, pl. 38, fig. 202 339
Proc. Acad. Nat. Sci., 1862, p. 271.
Goniobasis Hallenbeckii, Lea, pl. 38, fig. 203 339
Proc. Acad. Nat. Sci., 1862, p. 271.
Goniobasis Canbyi, Lea, pl. 38, fig. 204 340
Proc. Acad. Nat. Sci., 1862, p. 271.
Goniobasis Couperii, Lea, pl. 38, fig. 205 341
Proc. Acad. Nat. Sci, 1862, p. 271.
Goniobasis Downieana, Lea, pl. 38, fig. 206 341
Proc. Acad. Nat. Sci., 1862, p. 272.
Goniobasis Tryoniana, Lea, pl. 38, fig. 207 342
Proc. Acad. Nat. Sci., 1862, p. 272.
Goniobasis Postellii, Lea, pl. 38, fig. 208 343
Proc. Acad. Nat. Sci., 1858, as *Melania Postellii*.
Goniobasis granata, Lea, pl. 38, fig. 209 343
Proc. Acad. Nat. Sci., 1862, p. 272.
Goniobasis Stewardsoniana, Lea, pl. 38, fig. 210 344
Proc. Acad. Nat. Sci., 1862, p. 272.
Goniobasis cadus, Lea, pl. 38, fig. 211 345
Proc. Acad. Nat. Sci., 1862, p. 272.
Io, Lea, n. g 345
Io nodosa, Lea, pl. 39, fig. 212 346
Proc. Acad. Nat. Sci., 1861, p. 393.
Io robusta, Lea, pl. 39, fig. 213 346
Proc. Acad. Nat. Sci., 1861, p. 393.
Io variabilis, Lea, pl. 39, fig. 214 347
Proc. Acad. Nat. Sci., 1861, p. 393.
Io Spillmanii, Lea, pl. 39, fig. 215 348
Proc. Acad. Nat. Sci., 1861, p. 394.
Io modesta, Lea, pl. 39, fig. 216 348
Proc. Acad. Nat. Sci., 1861, p. 394.

1862. LEA, ISAAC—Continued.

Io gracilis, Lea, pl. 39, fig. 217 .....
Proc. Acad. Nat. Sci., 1861, p. 394.
Io viridula, Lea, pl. 39, fig. 218 .....
Proc. Acad. Nat. Sci., 1861, p. 394.
Trypanostoma dignum, Lea, pl. 39, fig. 219 .....
Proc. Acad. Nat. Sci., 1862, p. 273.
Trypanostoma luteum, Lea, pl. 39, fig. 220 .....
Proc. Acad. Nat. Sci., 1862, p. 273.
Trypanostoma Carolinense, Lea, pl. 39, fig. 221 .....
Proc. Acad. Nat. Sci., 1862, p. 273.
Trypanostoma Henryanum, Lea, pl. 39, fig. 222 .....
Proc. Acad. Nat. Sci., 1862, p. 272.
Trypanostoma lativittatum, Lea, pl. 39, fig. 223 .....
Proc. Acad. Nat. Sci., 1862, p. 273.
Trypanostoma strictum, Lea, pl. 39, fig. 224 .....
Proc. Acad. Nat. Sci., 1862, p. 272.
Trypanostoma rostellatum, Lea, pl. 39, fig. 225 .....
Proc. Acad. Nat. Sci., 1862, p. 272.
Lithasia vittata. Lea, pl. 39, fig. 226 .....
Proc. Acad. Nat. Sci., 1862, p. 273.
Lithasia Downiei. Lea, pl. 39, fig. 227 .....
Proc. Acad. Nat. Sci., 1862, p. 273.
Strephobasis carinata, Lea, pl. 39, fig. 228 .....
Proc. Acad. Nat. Sci., 1862, p. 273.
Strephobasis olivaria, Lea, pl. 39, fig. 229 .....
Proc. Acad. Nat. Sci., 1862, p. 273.

215.

1863. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descripti of New Species, their Soft Parts, and Embryonic Forms in | the Fam Unionidæ, | and Descriptions of New Genera and species of the | Melanidæ Read before the Academy of Natural Sciences of Philadelphia, and publishe their Journal. | by | Isaac Lea, LL. D., | President of the Academy of Natu Sciences of Philadelphia, Etc., Etc. | with sixteen plates. | Vol. 9. | Phi delphia: | Printed for the author. 4°. pp. 180. With plates of the Journ the Acad. Nat. Sci. 2d Series. Vol. V. Plates 24–39.

This consists of Nos. 213 and 214.

Presented to the Library of the Academy of Natural Sciences, Phila., 1863. (See *P Acad. Nat. Sci., Phila.*, xv, p. 378.)

216.

1863. LEA, ISAAC. Descriptions of fourteen new species of *Melanidæ* and one *Paludi* <*Proc. Acad. Nat. Sci., Phila.*, xv, pp. 154–156. May, 1863.

Read before the Academy of Natural Sciences May 19, 1863. Ordered to be publishe Proceedings May 26, 1863.

Proceedings for May laid on the table June 30, 1863. (See *Proc. Acad. Nat. Sci., Ph* XV, p. 157.)

This forms part of No. 236.

Goniobasis Milesii, Lea, n. s .....
Tuscola Co., Mich., M. Miles, State Zoologist.
Journ. Acad. Nat. Sci., vi, 1866, p. 135.
Goniobasis lithasiodes, Lea, n. s .....
Ohio, J. P. Kirtland, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 133, as *G. lithasioides*.
Goniobasis Decampii, Lea, n. s .....
Huntsville, Ala., Wm. H. De Camp, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 138.
Goniobasis informis, Lea, n. s .....
Falls of the Ohio at Louisville, W. H. De Camp, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 136.
Goniobasis Louisvillensis. Lea, n. s .....
Falls of the Ohio at Louisville, W. H. De Camp, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 133.

1863. LEA, ISAAC—Continued.

Goniobasis infantula, Lea, n. s 155
Falls of the Ohio at Louisville, W. H. De Camp, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 135.

Goniobasis aterina, Lea, n. s 155
Gap Spring, Cumberland Gap; and Roger's Spring, west of Fincastle, East Tennessee, Capt. S. S. Lyon.
Journ. Acad. Nat. Sci., vi, 1866, p. 136.

Goniobasis porrecta, Lea, n. s 155
Gap Creek and Spring, Cumberland Gap, E. Tenn., Capt. S. S. Lyon.
Journ. Acad. Nat. Sci., vi, 1866, p. 139.

Goniobasis vittatella, Lea, n. s 155
Cumberland Gap, E. Tenn., Capt. S. S. Lyon.
Journ. Acad. Nat. Sci., vi, 1866, p. 134.

Goniobasis Cumberlandiensis, Lea, n. s 155
Gap Spring, Cumberland Gap, Capt. Lyon; Knoxville, Tenn., Wm. Spillman, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 132.

Trypanostoma Currieranum, Lea, n. s 155
Florence, Alabama, W. H. De Camp, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 147, as *T. Currierianum*.

Trypanostoma Lyonii, Lea, n. s 155
Cumberland River, near the Ford and Big Creek, south of Cumberland Gap, E. Tenn., Capt. Lyon.
Journ. Acad. Nat. Sci., vi, 1866, p. 144.

Trypanostoma curtatum, Lea, n. s 155
Powell's River, near Cumberland Gap, E. Tenn., Capt. Lyon.
Journ. Acad. Nat. Sci., vi, 1866, p. 143.

Amnicola Currieriana, Lea, n. s 156
Huntsville, Alabama, W. H. De Camp, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 186.

Paludina Milesii, Lea, n. s 156
Branch Lake, Antrim Co., Mich., M. Miles.
Journ. Acad. Nat. Sci., vi, 1866, p. 184.

217.

1863. LEA, ISAAC. Descriptions of Eleven New Species of Exotic *Unionidæ*. <*Proc. Acad. Nat. Sci. Phila.*, xv, pp. 189–190. July, 1863.

Read before the Academy Natural Sciences June 16, 1863. Ordered to be published in the Proceedings July 28, 1863. This forms part of No. 236.

Unio delicatus, Lea, n. s 189
River Orontes, Syria, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1863, p. 58.

Unio Bourguignatianus, Lea, n. s 189
Tigris River at Mosul, Asia Minor, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1866, p. 54.

Unio dignatus, Lea, n. s 189
River Tigris at Bagdad, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1866, p. 51.

Unio rasus, Lea, n. s 189
Assyria, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1866, p. 50.

Unio Syriacus, Lea, n. s 189
River Orontes, Syria, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1866, p. 56.

Unio Damascensis, Lea, n. s 190
River Barado, Damascus, Asia Minor, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1866, p. 55.

Unio Orontesensis, Lea, n. s 190
River Orontes, Syria, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1866, p. 53.

Unio Mosulensis, Lea, n. s 190
River Tigris at Mosul, C. M. Wheatley
Journ. Acad. Nat. Sci., vi, 1866, p. 52.

[illegible] … 190

[illegible] … 19[illegible]

[illegible] … 190

[illegible]

[illegible] … <Proc.

[illegible]

[illegible] … 19[illegible]

[illegible]

[illegible] … 190

[illegible]

[illegible] … July, 18[illegible]

[illegible]

[illegible] … 191

[illegible] E. Emmons, M. D.

[illegible]

[illegible] … 19[illegible]

[illegible] M. D.

[illegible]

[illegible] … 19[illegible]

[illegible] M. D.

[illegible] p. 2[illegible]

[illegible] … 19[illegible]

[illegible] N. Carolina, C. M. Wheatley

[illegible] 1866, p. 2[illegible].

[illegible] … 19[illegible]

[illegible] at Weldon, N. Carolina, E. Emmons, M. D.

[illegible] Nat. Sci., [illegible] 1866, p. 11.

[illegible] … 19[illegible]

[illegible] miles east of Raleigh, N. Carolina, E. Emmons, M. D.

[illegible] Nat. Sci., [illegible] 1866, p. 7.

[illegible] … 193

[illegible] Chatham Co., N. Carolina, E. Emmons, M. D.; James River, near [illegible] Major Le Conte

[illegible] Nat. Sci., [illegible] 1866, p. 21.

[illegible] … [illegible]

[illegible] Raleigh, N. Carolina, E. Emmons, M. D.

[illegible] Nat. Sci., [illegible] 1866, p. 24.

[illegible] … [illegible]

[illegible] near Raleigh; Roanoke, near Weldon; Deep River, N. Carolina, E. Emmons, M. D.

[illegible] p. [illegible]

[illegible] … [illegible]

[illegible] North Carolina, E. Emmons, M. D.

[illegible] p. 14

[illegible] … [illegible]

[illegible] Neuse River, Raleigh and Catawba [illegible] M. Wheatley

[illegible]

1863. LEA, ISAAC—Continued.

Unio lucidus, Lea, n. s 192
Livingston's Creek, Brunswick Co., N. Carolina, E. Emmons, M. D.
Journ. Acad. Nat. Sci., vi, 1862, p. 9.

Unio nasutilus, Lea, n. s 192
Livingston's Creek, Brunswick Co., N. Carolina, E. Emmons, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 12, as *U. nasutulus*.

Unio indefinitus, Lea, n. s 192
Long Creek, Mecklenberg Co., N. Carolina, C. M. Wheatley; Neuse River, near Raleigh, E. Emmons, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 15, as *U. indefinitus*.

Unio cistellæformis, Lea, n. s 192
Neuse River, near Raleigh, N. Carolina, E. Emmons. M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 19.

Unio Waccamawensis, Lea, n. s 193
Waccamaw Lake, N. Carolina, E. Emmons, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 16.

Unio pertenuis, Lea, n. s 193
Neuse River, near Raleigh, N. Carolina, E. Emmons, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 8.

Unio perlucens, Lea, n. s 193
Six Runs, Sampson Co., N. Carolina, E. Emmons, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 18.

Unio perlatus, Lea, n. s 193
Black Rock Landing, Cape Fear River, N. Carolina, E. Emmons, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 15.

Unio viridulus, Lea, n. s 193
Neuse River, near Raleigh, N. Carolina, E. Emmons, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 10.

Unio oblatus, Lea, n. s 193
Long Creek, Gaston Co., N. Carolina, C. M. Wheatley; N. Carolina, J. G. Anthony.
Journ. Acad. Nat. Sci., vi, 1866, p. 13, as *U. oblatus*.

Unio curatus, Lea, n. s 193
Sugar Creek, N. Carolina, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1866, p. 23.

Unio doliaris, Lea, n. s 193
Stewart's Milldam, Union Co., N. Carolina, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1866, p. 24, as *U. doliaris*.

Anodonta Bealei, Lea, n. s 193
Leon Co., Texas, Lieutenant Beale.
Journ. Acad. Nat. Sci., vi, 1866, p. 26.

220.

1863. LEA, ISAAC. New Exotic Unionidæ. <*Journ. Acad. Nat. Sci.*, v, new series, pp. 377–400. Plates 41–50.

Read before the Academy Natural Sciences, Phila., May 12, 1863. Ordered to be published in the Journal May 26, 1863. Extra copies printed for the author November, 1863. (See *Journ. Acad. Nat. Sci., Phila.*, v, n. s., p. 3.) This, with No. 221, forms No. 222.

"Most of the species described in this paper are from South America, and nearly the whole of these were collected by Prof. J. Wyman. A few are from Asia, presented by various friends, to whom they are duly credited."

Unio Æthiops, Lea, pl. 41, fig. 285 377
Uruguay River, South America, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 91.

Unio funebralis, Lea, pl. 41, fig. 286 378
Uruguay River, South America, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 91.

Unio picrus, Lea, pl. 41, fig. 287 379
Uruguay River, South America, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 91.

Unio nocturnus, Lea, pl. 42, fig. 288 380
Uruguay River, South America, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 91.

1863. LEA, ISAAC—Continued.

Unio Wymanii, Lea, pl. 42, fig. 289 ..... [illegible]
Uruguay River, South America, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 90.

Unio gratus, Lea, pl. 43, fig. 290 ..... [illegible]
Uruguay River, South America, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 91.

Unio patelloides, Lea, pl. 43, fig. 291 ..... [illegible]
Amazon River, Brazil, Capt. George Brow; Rio Plata, H. Cuming.
Proc. Acad. Nat. Sci., xii, 1860, p. 89.

Unio peræformis, Lea, pl. 43, fig. 292 ..... [illegible]
Uruguay River, South America, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 90.

Unio disculus, Lea, pl. 44, fig. 293 ..... [illegible]
Uruguay River, South America, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 91.

Unio trifidus, Lea, pl. 44, fig. 295 ..... [illegible]
Buenos Ayres, South America, M. D'Orbigny.
Proc. Acad. Nat. Sci., xii, 1860, p. 89.

Unio piger, Lea, pl. 45, fig. 296 ..... [illegible]
Uruguay River, South America, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 90.

Unio Uruguayensis, Lea, pl. 45, fig. 298 ..... [illegible]
Uruguay River, South America, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 90.

Unio lepidus, Lea, pl. 50, fig. 306 ..... [illegible]
Uruguay River, South America, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 91.

Anodonta Wymanii, Lea, pl. 44, fig. 294 ..... [illegible]
Uruguay River, South America, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 91.

Anodonta rubicunda, Lea, pl. 46, fig. 299 ..... [illegible]
Uruguay River, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 92.

Anodonta Forbesiana, Lea, pl. 47, fig. 301 ..... [illegible]
Uruguay River, South America, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 92.

Anodonta Uruguayensis, Lea, pl. 48, fig. 302 ..... [illegible]
Uruguay River, South America, Prof. J. Wyman.
Proc. Acad. Nat. Sci., xii, 1860, p. 92.

Anodonta lato-marginata, Lea ..... [illegible]
Trans. Amer. Philos. Soc., v, pl. 12, fig. 34.

Anodonta Cailliaudii, Lea, pl. 45, fig. 297 ..... [illegible]
Brazil, Monsieur F. Cailliaud.
Proc. Acad. Nat. Sci., xii, 1860, p. 308.

Anodonta Amazonensis, Lea, pl. 46, fig. 300 ..... [illegible]
Upper Amazon, Brazil, C. M. Wheatley.
Proc. Acad. Nat. Sci., xii, 1860, p. 89.

Anodonta Moricandii, Lea, pl. 49, fig. 303 ..... [illegible]
Bahia, Brazil, S. Moricand, Geneva, Switzerland.
Proc. Acad. Nat. Sci., xii, 1860, p. 90.

Unio occatus, Lea, pl. 50, fig. 304 ..... [illegible]
Bengal, W. A. Haines.
Proc. Acad. Nat. Sci., xii, 1860, p. 307.

Mycetopus emarginatus, Lea, pl. 50, fig. 305 ..... [illegible]
Siam, S. R. House, M. D.
Proc. Acad. Nat. Sci., xii, 1860, p. 308.

Monocondylæa Wheatleyi, Lea, pl 50, fig. 307 ..... [illegible]
River Tigris, Assyria, C. M. Wheatley.

221.

1863. LEA, ISAAC. Descriptions of the Soft Parts of one hundred and forty-three species and some Embryonic Forms of Unionidæ of the United States. <*Journ. Acad. Nat. Sci.*, v, new series, pp. 401–456.

LEA, ISAAC—Continued.

Read before the Academy Natural Sciences, Phila., May 12, 1863. This, with No. 220, forms 222.

"It is not my intention here to redescribe the outward or hard parts—the exoskeleton—of those species which have been described, but simply the included *soft parts* of such as have come into my possession and have not heretofore been given."

"In my vols. i., ii., vi., vii., viii, and ix., taken from the Trans. Amer. Phil. Soc. and the Journal of the Acad. Nat. Sci., I have published descriptions of the soft parts of ninety-one species, which, with those herein described, will make two hundred and thirty-four."

Unio luteolus, Lam 402
Unio paulus, Lea 402
Trans. Amer. Philos. Soc., viii, pl. 15, fig. 29.
Unio Boykinianus, Lea 403
Trans. Amer. Philos. Soc., viii, pl. 13, fig. 22.
Unio alatus, Say 403
Unio nasutus, Say 403
Unio obesus, Lea 404
Trans. Amer. Philos. Soc., iv, pl. 13, fig. 26.
Unio Kleinianus, Lea 404
Trans. Amer. Philos. Soc., x, pl. 17, fig. 18.
Unio Dariensis, Lea 404
Trans. Amer. Philos. Soc., viii, pl. 26, fig. 61.
Unio angustatus, Lea 405
Trans. Amer. Philos. Soc., iv, pl. 17, fig. 43.
Unio decisus, Lea 405
Trans. Amer. Philos. Soc., iv, pl. 12, fig. 23.
Unio glans, Lea 405
Trans. Amer. Philos. Soc., iv, pl. 8, fig. 12.
Unio nitens, Lea 406
Trans. Amer. Philos. Soc., viii, pl. 12, fig. 19.
Unio anodontoides, Lea 406
Trans. Amer. Philos. Soc., iv, pl. 8, fig. 11.
Unio obtusus, Lea 406
Trans. Amer. Philos. Soc., viii, pl. 11, fig. 13.
Unio infucatus, Con 407
Unio lineatus, Lea 407
Trans. Amer. Philos. Soc., viii, pl. 12, fig. 20.
Unio limatulus, Con 407
Unio Barrattii, Lea 408
Trans. Amer. Philos. Soc., x, pl. 13, fig. 5.
Unio Sloatianus, Lea 408
Trans. Amer. Philos. Soc., viii, pl. 16, fig. 33.
Unio subangulatus, Lea 408
Trans. Amer. Philos. Soc., viii, pl. 13, fig. 23.
Unio incrassatus, Lea 409
Trans. Amer. Philos. Soc., viii, pl. 16, fig. 34.
Unio nigellus, Lea 409
Trans. Amer. Philos. Soc., x, pl. 24, fig. 42.
Unio tortivus, Lea 409
Trans. Amer. Philos. Soc., viii, pl. 12, fig. 17.
Unio fraternus, Lea 410
Trans. Amer. Philos. Soc., x, pl. 16, fig. 15.
Unio crassidens, Lam 410
Unio Conradianus, Lea 410
Trans. Amer. Philos. Soc., v, pl. 9, fig. 23.
Unio acutissimus, Lea 411
Trans. Amer. Philos. Soc., iv, pl. 10, fig. 18.
Unio strigosus, Lea 411
Trans. Amer. Philos. Soc., viii, pl. 9, fig. 9.
Unio radiatus, Lam 411
Unio complanatus = *Mya complanata*, Soland., MSS 412
Unio spinosus, Lea 413
Trans. Amer. Philos. Soc., vi, pl. 16, fig. 50.
Unio dolabræformis, Lea 413
Trans. Amer. Philos. Soc., vi, pl. 24, fig. 118.

Unio disculus, L[illegible]
Uruguay [illegible]
Proc. Acad[illegible]
Unio trifidus, L[illegible]
Buenos A[illegible]
Proc. Ac[illegible]
Unio piger, L[illegible]
Urugu[illegible]
Proc. [illegible]
Unio Urug[illegible]
Uru[illegible]
Pro[illegible]
Unio lepi[illegible]
U[illegible]
P[illegible]
Anodo[illegible]
U[illegible]
P[illegible]
Anodo[illegible]
Anod[illegible]
An[illegible]
Anod[illegible]

3. LEA, ISAAC—Continued.

Unio zigzag, Lea 430
Trans. Amer. Philos. Soc. (2), iii, pl. 12, fig. 19.
Unio Cooperianus, Lea 430
Trans. Amer. Philos. Soc. (2), v, pl. 8, fig. 21.
Unio metanevrus, Raf 430
Unio orbiculatus, Hild 430
Unio plicatus, Lesueur, Say 431
Unio lacrymosus, Lea 431
Trans. Amer. Philos. Soc. (2), iii, pl. 6, fig. 8.
Unio securis, Lea 431
Trans. Amer. Philos. Soc. (2), iii, pl. 11, fig. 17.
Unio Æsopus, Green 432
Unio ellipsis, Lea 432
Trans. Amer. Philos. Soc., (2), iii, pl. 4, fig. 4.
Unio retusus, Lam 433
Unio pyramidatus, Lea 433
Trans. Amer. Philos. Soc. (2), iv, pl. 16, fig. 39.
Unio irroratus, Lea 433
Trans. Amer. Philos. Soc. (2), iii, pl. 5, fig. 5.
Unio gracilis, Bar 434
Unio ovatus, Say 435
Unio Blandingianus, Lea 435
Trans. Amer. Philos. Soc., v, pl. 15, fig. 44.
Unio inflatus, Lea, = *Symphynota inflata*, Lea 335
Trans. Amer. Philos. Soc. (2), iv, pl. 14, fig. 28.
Unio purpuratus, Lam 436
Unio Claibornensis, Lea 436
Trans. Amer. Philos. Soc. (2), vi, pl. 24, fig. 115.
Unio trapezoides, Lea 436
Trans. Amer. Philos. Soc. (2), iv, pl. 3, fig. 1.
Unio asper, Lea 437
Trans. Amer. Philos. Soc. (2), iv, pl. 9, fig. 15.
Unio atrocostatus, Lea 437
Trans. Amer. Philos. Soc. (2), x, pl. 2, fig. 5.
Unio declivis, Say 437
Unio circulus, Lea 438
Trans. Amer. Philos. Soc. (2), iii, pl. 9, fig. 14.
Unio crocatus, Lea 438
Trans. Amer. Philos. Soc. (2), viii, pl. 22, fig. 52.
Unio castanus, Lea 439
Trans. Amer. Philos. Soc. (2), iv, pl. 11, fig. 21.
Unio Nashvillensis, Lea 439
Trans. Amer. Philos. Soc. (2), v, pl. 14, fig. 43.
Unio nux, Lea 439
Trans. Amer. Philos. Soc. (2), x, pl. 24, fig. 43.
Unio penitus, Con 440
Unio dehiscens, Say, = (*oriens*, Lea) 440
Unio tenuissimus, Lea, = *Sympyanota tenuissima*, Lea 441
Trans. Amer. Philos. Soc. (2), iii, pl. 11, fig. 21.
Unio clavus, Lam 441
Unio obliquus, Lam. (= *undatus*, Bar.) 441
Unio obscurus, Lea 442
Trans. Amer. Philos. Soc. (2), vi, pl. 3, fig. 7.
Unio personatus, Say, = (*capillaris*, Lea) 442
Unio heterodon, Lea 442
Trans. Amer. Philos. Soc. (2), iii, pl. 8, fig. 11.
Unio ridibundus, Say (= *sulcatus*, Lea) 442
Unio foliatus, Hild 443
Unio subgibbosus, Lea 443
Journ. Acad. Nat. Sci. (2), iv, pl. 6, fig. 36.
Unio fibuloides, Lea 443
Journ. Acad. Nat. Sci. (2), iv, pl. 28, fig. 100
Unio Foremanianus, Lea 443
Trans. Amer. Philos. Soc. (2), viii, pl. 27, fig. 64.
Unio compactus, Lea 444
Journ. Acad. Nat. Sci. (2), iv, pl. 28, p. 98.

Trans. Amer. Philos. Soc., vi, pl. 22, fig. 69.
Margaritana Hildrethiana, Lea .....
Trans. Amer. Philos. Soc., v, pl. 3, fig. 8.
Margaritana deltoidea, Lea .....
Trans. Amer. Philos. Soc. (2), vi, pl. 13, fig. 38.
Margaritana confragosa, = *Alasmodonta confragosa*, Say .....
Margaritana complanata, = *Alasmodonta complanata*, Barnes .....
Anodonta subcylindracea, Lea .....
Trans. Amer. Philos. Soc., vi, pl. 24, fig. 117.
Anodonta imbecilis, Say .....
Anodonta undulata, Say .....
Anodonta Ferussaciana, Lea .....
Trans. Amer. Philos. Soc. (2), v, pl. 6, fig. 15.
Anodonta Couperiana, Lea .....
Trans. Amer. Philos. Soc. (2), viii, pl. 20, fig. 46.
Anodonta plana, Lea .....
Trans. Amer. Philos. Soc. (2), pl. 7, fig. 18.
Anodonta decora, Lea .....
Trans. Amer. Philos. Soc. (2), vi, pl. 20, fig. 63.
Anodonta ovata, Lea .....
Trans. Amer. Philos. Soc. (2), v, pl. 2, fig. 2.
Anodonta edentula, = *Alasmodonta*, Say .....
Anodonta Wahlamatensis, Lea .....
Trans. Amer. Philos. Soc. (2), vi, pl. 20, fig. 64.
Anodonta gigantea, Lea .....
Trans. Amer. Philos. Soc. (2), vi, pl. 1, fig. 1.
Anodonta Oregonensis, Lea .....
Trans. Amer. Philos. Soc. (2), vi, pl. 21, fig. 67.
Anodonta fragilis, Lam .....
Supplement .....
Unio ochraceus, Say .....
Unio Fisherianus, Lea .....
Trans. Amer. Philos. Soc. (2), vi, pl. 4, fig. 8.

222.

1863. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Desc of New Species, their Soft Parts, and Embryonic Forms, | in the | Fau onidæ. | Read before the Academy of Natural Sciences of Philadelphi Published in their Journal. | by | Isaac Lea, LL. D., | President of th emy of Natural Sciences of Philadelphia, Etc., Etc. | with ten plate 10. | Philadelphia: | Printed for the author. 4to, pp. 94, with the p the Journ. Acad. Nat. Sci., 2d series, Vol. v, plates 41–50.

This consists of Nos. 220 and 221.

223.

1864. LEA, ISAAC. Description of a new Genus of the Family *Melanidæ*. *Acad. Nat. Sci., Phila.*, xvi, pp. 2–3. January, 1864.

Read before the Academy Natural Sciences January 12, 1864, and ordered to be p in the Proceedings January 26, 1864. This forms part of No. 226.

MESESCHIZA, Lea, n. g .....
Mesescheiza Grosvenorii, Lea, n. s .....
Wabash River, Indiana, H. C. Grosvenor.
Journ. Acad. Nat. Sci., vi, 1866, p. 152.

224.

1864. LEA, ISAAC. Descriptions of eleven new indigenous Species of *Melanidæ*. <*Proc. Acad. Nat. Sci., Phila.*, xvi, pp. 3–5. January, 1864.

Read before the Academy of Natural Sciences January 12, 1864, and ordered to be published in the Proceedings January 26, 1864. This forms part of No. 236.

Goniobasis Emeryensis, Lea, n. s 3
Rocky Creek, head branch of Emery Run, E. Tennessee, Maj. S. S. Lyon.
Journ. Acad. Nat. Sci., vi, 1866, p. 137.

Goniobasis umbonata, Lea, n. s 3
Smith's Shoals, Cumberland River, E. Tennessee, Maj. S. S. Lyon.
Journ. Acad. Nat. Sci., vi, 1866, p. 150, under the name of *Eurycælon umbonatum*.

EURYCÆLON, Lea, n. s. g 3
Ευρυς, amplus, and Κοιλον, cavitas.

Goniobasis Albanyensis, Lea, n. s 4
Near Albany and Blue Springs, Baker Co., Georgia, Rev. G. White.
Journ. Acad. Nat. Sci., vi, 1866, p. 141.

Goniobasis viridostriatis, Lea, n. s 4
Flint River, Georgia, Bishop Elliott and Mr. Gesner.
Journ. Acad. Nat. Sci., vi, 1866, p. 140, under the name *G. viridistriata*.

Trypanostoma subrobustum, Lea, n. s 4
Holston River at Knoxville, E. Tennessee, Maj. S. S. Lyon.
Journ. Acad. Nat. Sci., vi, 1866, p. 141.

Trypanostoma Roanensis, Lea, n. s 4
Roane Co., E. Tennessee, Maj. S. S. Lyon.
Journ. Acad. Nat. Sci., vi, 1866, p. 142.

Trypanostoma Lesleyi, Lea, n. s 4
East Tennessee, Professor Frost; Smith's Shoals, Cumberland River, E. Tenn., Maj. S. S. Lyon; Pulaski Co., Kentucky, Joseph Lesley, C. E.
Journ. Acad. Nat. Sci., vi, 1866, p. 146.

Trypanostoma affine, Lea, n. s 4
Smith's Shoals, Cumberland River, E. Tenn., Maj. S. S. Lyon.
Journ. Acad. Nat. Sci., vi, 1866, p. 145.

Trypanostoma cylindraceum, Lea, n. s 4
Roane Co., E. Tenn., Maj. S. S. Lyon.
Journ. Acad. Nat. Sci., vi, 1866, p. 142.

Trypanostoma carinatum, Lea, n. s 4
Bull Run, tributary to Clinch River, E. Tennessee, Maj. S. S. Lyon.
Journ. Acad. Nat. Sci., vi, 1866, p. 148.

Strephobasis Lyonii, Lea, n. s 5
Holston River at Knoxville, E. Tennessee, Maj. S. S. Lyon.
Journ. Acad. Nat. Sci., vi, 1866, p. 151.

225.

1864. LEA, ISAAC. Description of and Remarks on *Planorbis Newberryi*. <*Proc. Acad. Nat. Sci., Phila.*, xvi, p. 5. January, 1864.

Read before the Academy Natural Sciences January 12, 1864, and ordered to be published in the Proceedings January 26, 1864. This forms part of No. 236.

Planorbis Newberryi, Lea, n. s 5
Klamath Lake and Canoe Creek, California, J. S. Newberry, M. D.

226.

1864. LEA, ISAAC. Descriptions of six New Species of Unionidæ from Lake Nyassa, Central Africa, &c. <*Proc. Acad. Nat. Sci., Phila.*, xvi, pp. 108–109. April, 1864.

Read before the Academy Natural Sciences April 12, 1864, and ordered to be published April 23, 1864. This forms part of No. 236.

Unio Kirkii, Lea, n. s 108
Lake Nyassa, Central Africa, John Kirk, M. D., of the Zambezi Expedition.
Journ. Acad. Nat. Sci., vi, 1866, p. 32.

Unio Nyassaensis, Lea, n. s 108
Lake Nyassa, Central Africa, John Kirk, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 33.

1864. LEA, ISAAC—Continued.

Unio Aferula, Lea, n. s. 100
Lake Nyassa, Africa, John Kirk, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 34.

Spatha alata, Lea, n. s 100
Lake Nyassa, Africa, John Kirk, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 35.

Spatha Nyassaensis, Lea, n. s 100
Lake Nyassa, Africa, John Kirk, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 36.

Spatha modesta, Lea, n. s 100
Fresh-waters near Mozambique, Africa, John Kirk, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 37.

227.

1864. LEA, ISAAC. Description of six new species of SUCCINEA of the United States. <*Proc. Acad. Nat. Sci., Phila.*, xvi, pp. 109–111.

Read before the Academy Natural Sciences April 12, 1864, and ordered to be published April 25, 1864. This forms part of No. 236.

Succinea Haleana, Lea, n. s 10
Alexandria, La., J. Hale, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 180, under the name *S. Halei*.

Succinea Grosvenorii, Lea, n. s 10
Santa Rita Valley, Kans.? H. C. Grosvenor; Alexandria, La., J. Hale, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 179.

Succinea Mooresiana, Lea, n. s 10
Court House Rock, on Platte River, California route, Mr. H. Moores.
Journ. Acad. Nat. Sci., vi, 1866, p. 179.

Succinea Wilsonii, Lea, n. s 10
Near Darien, Ga., S. W. Wilson, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 177.

Succinea Forsheyi, Lea, n. s 10
Rutersville, Tex., Prof. C. G. Forshey.
Journ. Acad. Nat. Sci., vi, 1866, p. 178.

Succinea pellucida, Lea, n. s 11
United States.
Journ. Acad. Nat. Sci., vi, 1866, p. 178.

Discussion upon Dr. Binney's treatment of the following eight species of Succinea. 110-11
Journ. Acad. Nat. Sci., vi, 1866, pp. 180–182.

Succinea aperta, Lea 11
Succinea aurea, Lea 11
Succinea retusa, Lea 11
Succinea Wardiana, Lea 11
Succinea Totteniana, Lea 11
Succinea Nuttalliana, Lea 11
Succinea Oregonensis, Lea 11
Succinea inflata, Lea 11

228.

1864. LEA, ISAAC. Description of a new Species of PLANORBIS. <*Proc. Acad. Nat. Sci., Phila.*, xvi, p. 111. April, 1864.

Read before the Academy of Natural Sciences April 19, 1864. Ordered to be published April 25, 1864. This forms part of No. 236.

Planorbis Billingsii, Lea, n. s 11
Ottawa River, Canada West, E. Billings, esq.
Journ. Acad. Nat. Sci., vi, 1866, p. 159.

229.

1864. LEA, ISAAC. Descriptions of Thirteen New Species of MELANIDÆ of the United States. <*Proc. Acad. Nat. Sci., Phila.*, xvi, pp. 111–113. April, 1864.

Read before the Academy Natural Sciences April 12, 1864. Ordered to be published Apr 25, 1864. This forms part of No. 236.

64. LEA, ISAAC—Continued.

Goniobasis subrhombica, Lea, n. s 111
Hog Creek, North Georgia, J. Clark.
Journ. Acad. Nat. Sci., vi, 1866, p. 132.

Goniobasis fraterna, Lea, n. s 111
Bibb Co. and Cahawba River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 139.

Goniobasis Romæ, Lea, n. s 111
Rome, North Georgia, Rev. G. White.
Journ. Acad. Nat. Sci., vi, 1866, p. 129.

Goniobasis quadricincta, Lea, n. s 112
Coosa and Cahawba River, Alabama, E. B. Showalter, M. D.; East Tennessee and North Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., vi, 1866, p. 131.

Goniobasis Smithsoniana, Lea, n. s 112
North Georgia, Smithsonian Inst. and East Tenn., Bishop Elliott.
Journ. Acad. Nat. Sci., vi, 1866, p. 137.

Goniobasis pulla, Lea, n. s 112
Cumberland Gab, East Tenn., Maj. S. S. Lyon.
Journ. Acad. Nat. Sci., vi, 1866, p. 130.

Goniobasis pupæformis, Lea, n. s 112
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 130.

Trypanostoma venustum, Lea, n. s 112
Big Prairie Creek, Alabama, Dr. Showalter.
Journ. Acad. Nat. Sci., vi, 1866, p. 151.

Trypanostoma cinctum, Lea, n. s 112
North Alabama, Professor Tuomey.
Journ. Acad. Nat. Sci., vi, 1866, p. 147.

Trypanostoma univittata, Lea, n. s 112
Cahawba River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 145.

Trypanostoma corneum, Lea, n. s 112
Tennessee, J. G. Anthony.
Journ. Acad. Nat. Sci., vi, 1866, p. 148.

Trypanostoma napoideum, Lea, n. s 112
Tennessee, Professor Troost.
Journ. Acad. Nat. Sci., vi, 1866, p. 143.

Schizostoma Showalterii, Lea, n. s 112
Coosa River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 149.

230.

64. LEA, ISAAC. Description of five new Species of Lymnæa of North America. <*Proc. Acad. Nat. Sci., Phila.*, xvi, 1864, p. 113. April, 1864.

Read before the Academy of Natural Sciences April 19, 1864. Ordered to be printed April 25, 1864. This forms part of No. 236.

Lymnæa Smithsoniana, Lea, n. s 113
Loup Fork of Platte River, F. V. Hayden, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 161.

Lymnæa Traskii, Lea, n. s 113
San Antonio, Arroya, John B. Trask, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 162, under the name of *Lymnæa Tryoniana*.

Lymnæa Jamesii, Lea, n. s 113
Ponds near Cincinnati, Ohio, U. P. James, esq.; and La Fayette, Walker Co., Georgia, Rev. G. White.
Journ. Acad. Nat. Sci., vi, 1866, p. 161.

Lymnæa Lecontii, Lea, n. s 113
Georgia, Major John Le Conte.
Journ. Acad. Nat. Sci., vi, 1866, p. 162.

Lymnæa Arctica, Lea, n. s 113
Moose River of Hudson's Bay, Smithsonian Institution.
Journ. Acad. Nat. Sci., vi, 1866, p. 160.

231.

1864. LEA, ISAAC. Descriptions of two new Species of Unionidæ from South Africa. <*Proc. Acad. Nat. Sci., Phila.*, xvi, p. 113. April, 1864.

Read before the Academy of Natural Sciences April 19, 1864. Ordered to be published April 25, 1864. This forms part of No. 236.

Spatha Natalensis, Lea, n. s 113
Umpingave River, Port Natal, South Africa, Rev. J. McKen.
Journ. Acad. Nat. Sci., vi, 1866, p. 64.

Unio Natalensis, Lea, n. s 113
Umpingave River, Port Natal, South Africa, Rev. J. McKen.
Journ. Acad. Nat. Sci., vi, 1866, p. 59.

232.

1864. LEA, ISAAC. Descriptions of Twenty-four new Species of PHYSA of the United States and Canada. <*Proc. Acad. Nat. Sci., Phila.*, xvi, pp. 114–116. April, 1864.

Read before the Academy of Natural Sciences April 19, 1864, and ordered to be published April 25, 1864. This forms part of No. 236.

Physa Niagarensis, Lea, n. s 114
Niagara River, N. Y.
Journ. Acad. Nat. Sci., vi, 1866, p. 173.

Physa Altonensis, Lea, n. s 114
Alton, Illinois, Henry Lea.
Journ. Acad. Nat. Sci., vi. 1866, p. 164.

Physa crocata, Lea, n. s 114
Lafayette, Walker Co., Ga., Rev. G. White.
Journ. Acad. Nat. Sci., vi, 1866, p. 169.

Physa Forsheyi, Lea, n. s 114
Near Rutersville, Texas, Prof. C. G. Forshey.
Journ. Acad. Nat. Sci., vi, 1866, p. 172.

Physa tenuissima, Lea, n. s 114
Alexandria, La., J. Hale, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 167.

Physa Halei, Lea, n. s 114
Alexandria, La., J. Hale, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 165.

Physa Febigerii, Lea, n. s 114
Logan Co., Ohio, Major G. L. Febiger.
Journ. Acad. Nat. Sci., vi, 1866, p. 174.

Physa Nicklinii, Lea, n. s 114
Callaghan's, Alleghany Co., Va., P. H. Nicklin, Esq.
Journ. Acad. Nat. Sci., vi, 1866, p. 175.

Physa Grosvenorii, Lea, n. s 114
Santa Rita Valley, Kansas, † Mr. H. C. Grosvenor.
Journ. Acad. Nat. Sci., vi, 1866, p. 175.

Physa Whitei, Lea, n. s 114
Lafayette, Walker Co., Ga., Rev. G. White; Verdigris River, Kansas, F. Hawn.
Journ. Acad. Nat. Sci., vi, 1866, p. 172.

Physa Saffordii, Lea, n. s 115
Lebanon, Wilson Co., Tenn., J. M. Safford; Verdigris River, Kansas, F. Hawn; Nashville, Prof. Troost.
Journ. Acad. Nat. Sci., vi, 1866, p. 167.

Physa Hawnii, Lea, n. s 115
Verdigris River, Kansas, F. Hawn.
Journ. Acad. Nat. Sci., vi, 1866, p. 165.

Physa anatina, Lea, n. s 115
Northern Tributary Arkansas River, Kansas, F. Hawn.
Journ. Acad. Nat. Sci., vi, 1866, p. 171.

Physa parva, Lea, n. s 115
Verdigris River and Rock Creek, Kansas, F. Hawn.
Journ. Acad. Nat. Sci., vi, 1866, p. 177.

Physa Showalterii, Lea, n. s 115
Uniontown, Ala., E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 170.

1864. LEA, ISAAC—Continued.

Physa Smithsoniana, Lea, n. s 115
Loup Fork, Platte River, F. V. Hayden, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 169.

Physa Warreniana, Lea, n. s 115
Loup Fork, Platte River, F. V. Hayden, M. D.; Milwaukee, Wisconsin, H. C. Grosvenor; Grand Rapids, Michigan, A. O. Currier.
Journ. Acad. Nat. Sci., vi, 1866, p. 164.

Physa Traskii, Lea, n. s 115
Rio Los Angelos, California, J. B. Trask, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 163.

Physa striata, Lea, n. s 115
Salt Lagoon, near Monterey, Cal., J. B. Trask, M. D.
Journ. Acad. Nat. Sci., vi, 1866, p. 166, under the name of *P. D 'orbigniana*.

Physa Blandii, Lea, n. s 116
California, Mr. Thomas Bland.
Journ. Acad. Nat. Sci., vi, 1866, p. 168.

Physa Nuttallii, Lea, n. s 116
Lewis' River, Oregon, Prof. Thomas Nuttall.
Journ. Acad. Nat. Sci., vi, 1866, p. 171.

Physa venusta, Lea, n. s 116
Near Fort Vancouver, Oregon, Sir George Simpson.
Journ. Acad. Nat. Sci., vi, 1866, p. 168.

Physa hordacea, Lea, n. s 116
Vancouver Island, Oregon, Sir George Simpson.
Journ. Acad. Nat. Sci., vi, 1866, p. 176.

Physa brevispira, Lea, n. s 116
Ottawa River, Canada West, E. Billings, esq.
Journ. Acad. Nat. Sci., vi, 1866, p. 173.

233.

1864. LEA, ISAAC. Description of Six new species of Western Asiatic Unionidæ. <*Proc. Acad. Nat. Sci., Phila.*, xvi, pp. 285–286. December, 1864.

Read before the Academy of Natural Sciences December 20, 1864, and ordered to be published December 27, 1864. This forms part of No. 236.

The portion here printed consists only of the Latin descriptions of the species, with mention of the habitat of each. The full paper will be found in "*Journ. Acad. Nat. Sci., Phila.*", vi, 1868, pp. 249–255, and in "Observations on the Genus Unio," vol. xii, 1869, pp. 9–15.

Unio Homsensis, Lea, n. s 285
Lake Homs (ancient Emesa), River Orontes, North Syria, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1868, p. 249.

Unio Kullethensis, Lea, n. s 285
Near Mardin, in a stream from Kulleth falling into the Tigris, Asia, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1868, p. 251.

Unio Orphaensis, Lea, n. s 285
Tigris River, near Mardin Pashalic of Orpha, Asiatic Turkey, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1868, p. 250.

Unio Mardinensis, Lea, n. s 286
Tigris River, near Mardin, Asiatic Turkey, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1868, p. 252.

Unio Emesaensis, Lea, n. s 286
Lake Homs, River Orontes, North Syria, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1868, p. 254.

Monocondylæa Mardinensis, Lea, n. s 286
Near Mardin, in a stream falling into the Tigris River, Asia, C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1868, p. 252.

234.

1865. LEA, ISAAC. Descriptions of three new species of Exotic Uniones. <*Proc. Acad. Nat. Sci., Phila.*, xvii, pp. 75–76. April, 1865.

Read before the Academy of Natural Sciences April 18, 1865, and ordered to be published April 25, 1865. This forms part of No. 236.

The full notes upon the species are found in the *Journ. Acad. Nat. Sci., Phila.*, vi, 1868, pp. 263–267, and in Observations upon the Genus Unio, vol. xii, 1869, pp. 42–47.

1865. LEA, ISAAC—Continued.

Unio Wrightii, Lea, n. s.
China, A. R. Wright, M. D.
Journ. Acad. Nat. Sci., 1868, p. 283.

Unio tortuosus, Lea, n. s.
China, A. R. Wright, M. D.
Journ. Acad. Nat. Sci., vi, 1868, p. 286.

Unio rufofuscus, Lea, n. s.
—— ? Sig. Patricio Maria Paz.
Journ. Acad. Nat. Sci., vi, 1868, p. 282.

235.

1865. LEA, ISAAC. Descriptions of Eight new species of Unio of the United
<*Proc. Acad. Nat. Sci., Phila.*, xvii, pp. 88–89. May, 1865.

Read before the Academy of Natural Sciences May 16, 1865, and ordered to be p May 30, 1865. This forms part of No. 236.

This consists only of the Latin descriptions of the species, with mention of the h each species. The full paper will be found in "*Journ. Acad. Nat. Sci., Phila.*," vi, 1868, 262, and in "Observations on the Genus Unio," xii, 1869, pp. 15–22.

Unio doliaris, Lea, n. s.
Etowah River, Georgia, Rev. G. White.
Journ. Acad. Nat. Sci., vi, 1868, p. 260.

Unio protensus, Lea, n. s.
North Carolina, Prof. E. Emmons.
Journ. Acad. Nat. Sci., vi, 1868, p. 256.

Unio punctatus, Lea, n. s.
Caney Fork, Tennessee, Dr. Edgar; and Tuscumbia, Alabama, B. Pybas.
Journ. Acad. Nat. Sci., vi, 1868, p. 261.

Unio amabilis, Lea, n. s.
Butler, Taylor Co., Georgia, H. M. Neisler.
Journ. Acad. Nat. Sci., 1868, p. 257.

Unio Lyonii, Lea, n. s.
East Tennessee, Major S. S. Lyon, U. S. E.
Journ. Acad. Nat. Sci., 1868, p. 259.

Unio proprius, Lea, n. s.
Lafayette, Georgia, Rev. G. White.
Journ. Acad. Nat. Sci., 1868, p. 256.

Unio Cromwellii, Lea, n. s.
Kiokee Creek, near Albany, Dougherty Co., Georgia, B. M. Cromwell, M. D.
Journ. Acad. Nat. Sci., vi, 1868, p. 258.

Unio marginis, Lea, n. s.
Blue Springs, Dougherty Co., Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., 1868, p. 255.

236.

1866. LEA, ISAAC. On | Leaia Leidyi=Cypricardia Leidyi. | Descriptions of teen New Species of Melanidæ. | Descriptions of Eleven New Spec Exotic | Unionidæ. | Descriptions of Twenty-four New Species of Union Descriptions of a New Species of Unio and a Mono- | condylœa. | Descr of a New Genus of the Family Melanidæ. | Descriptions of Eleven New S of Melanidæ. | Description of & Remarks on Planorbis Newberryi. | De tions of Six New Species of Unionidæ from | Lake Nyassa. | Descripti Six New Species of Succinea, Etc. | Descriptions of Thirteen New Spe Melanidæ. | Description of a New Species of Planorbis. | Descriptic Five New Species of Lymnea. | Descriptions of Two New Species of Unio from | South Africa. | Descriptions of Twenty-four New Species of Ph Descriptions of Six New Species of Western Asiatic | Unionidæ. | Descri of Three New Species of Exotic Uniones. | Descriptions of Eight New S of Unio. | by | Isaac Lea, LL. D. | — | Philadelphia: | Merrihew & Printers, | No. 243 Arch Street. | 1866. 8°. pp. 32.

Extracts from the Proceedings Academy Natural Sciences, Phila.

This consists of Nos. 216, 217, 218, 219, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 2 235.

237.

LEA, ISAAC. Appendix IV. [to Bibliography of North American Conchology, Previous to the year 1860, by W. G. Binney.] <*Smithsonian Miscellaneous Collections*, ix, 1866, pp. 289–294.

Separate as follows:

Tables | of the | Rectification of Mr. T. A. Conrad's | "Synopsis of the Family of Naiades of North America." | by Isaac Lea, LL. D. | — | Philadelphia: | Collins, Printer, 705 Jayne Street. | 1866. 8°. pp. 289–294 Pamphlet.

This is an exact reprint of the tables contained in No. 101.

238.

LEA, ISAAC. Description of twelve new species of Unionidæ from South America. <*Proc. Acad. Nat. Sci., Phila.*, xviii, pp. 33–35.

Read before the Academy of Natural Sciences March 20, 1866, and ordered to be published March 27, 1866.

This forms part of No. 256.

The full notes on the species will be found in *Journ. Acad. Nat. Sci., Phila.*, vi, 1868, pp. 262–275, and "Observations on the Genus Unio," vol. xii, 1869, pp. 22–35.

The species described in this paper were procured in South America by Don Patricio M. Paz, of Madrid.

Unio peculiaris, Lea, n. s 33
South America, Don Patricio M. Paz.
Journ. Acad. Nat. Sci., vi, 1868, p. 265.

Unio firmus, Lea, n. s 33
South America, Don Patricio M. Paz.
Journ. Acad. Nat. Sci., vi, 1868, p. 267.

Unio rugososulcatus, Lea, n. s 33
Central America, ? Don Patricio M. Paz.
Journ. Acad. Nat. Sci., vi, 1868, p. 266.

Unio apprimus, Lea, n. s 34
South America, Don Patricio M. Paz.
Journ. Acad. Nat. Sci., vi, 1868, p. 263.

Unio locellus, Lea, n. s 34
Buenos Ayres, S. Amer., Don Patricio M. Paz.
Journ. Acad. Nat. Sci., vi, 1868, p. 264.

Unio parcus, Lea, n. s 34
South America, Don Patricio M. Paz.
Journ. Acad. Nat. Sci., 1868, p. 262.

Unio acutirostris, Lea, n. s 34
South America, Don Patricio M. Paz.
Journ. Acad. Nat. Sci., vi, 1868, p. 270.

Unio ampullaceus, Lea, n. s 34
South America, Don Patricio M. Paz.
Journ. Acad. Nat. Sci., vi, 1868, p. 269.

Unio Paraguayensis, Lea, n. s 34
Paraguay, South America, Don Patricio M. Paz.
Journ. Acad. Nat. Sci., vi, 1868, p. 271.

Monocondylæa lentiformis, Lea, n. s 34
South America, Don Patricio M. Paz.
Journ. Acad. Nat. Sci., vi, 1868, p. 272.

Monocondylæa Pazii, Lea, n. s 34
South America, Don Patricio M. Paz.
Journ. Acad. Nat. Sci., vi, 1868, p. 273.

Anodonta Pazii, Lea, n. s 35
South America, Don Patricio M. Paz.
Journ. Acad. Nat. Sci., vi, 1868, p. 274.

239.

1866. LEA, ISAAC. Notes on Some Members of the Feldspar Family. <*Proc. Acad. Nat. Sci., Phila.*, xviii, pp. 110–113. Separate without cover, pp. 4.

Read before the Academy of Natural Sciences May 1, 1866, and ordered to be published May 29, 1866.

This forms part of No. 256.

240.

1866. LEA, ISAAC. Description of five New Species of the Genus Unio. <*Proc. Acad. Nat. Sci., Phila.*, xviii, p. 133.

Read before the Academy of Natural Sciences May 15, 1866, and ordered to be published May 29, 1866.

This forms part of No. 256.

The portion printed here consists of the Latin descriptions of the species with the habitat of each. The full remarks upon the species will be found in "*Journ. Acad. Nat. Sci., Phila.*, vol. vi, 1868, and "Observations on the genus Unio," vol. xii, 1869.

Unio Siamensis, Lea, n. s 133
Siam, C. M. Wheatley.
Journ. Acad. Nat. Sci., 1868, p. 279.

Unio asperulus, Lea, n. s 133
Siam, Thomas R. Ingalls, M. D.
Journ. Acad. Nat. Sci., 1868, p. 280.

Unio pilatus, Lea, n. s 133
Siam, Thomas R. Ingalls, M. D.
Journ. Acad. Nat. Sci., 1868, p. 281.

Unio vitatus, Lea, n. s 133
Bengal, W. A. Haines.
Journ. Acad. Nat. Sci., vi, 1868, p. 279.

Unio Strebelii, Lea, n. s 133
Vera Cruz, Mexico, G. Strebel.
Journ. Acad. Nat. Sci., vi, 1868, p. 318.

241.

1866. LEA, ISAAC. Description of two New Species of the Genus Lithasia. <*Proc. Acad. Nat. Sci., Phila.*, xviii, p. 133.

Read before the Academy of Natural Sciences May 15, 1866, and ordered to be published May 29, 1866.

This forms part of No. 256.

Latin descriptions with mention of habitat.

Lithasia cylindrica, Lea, n. s 133
Coosa River, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., vi, 1868, p. 341.

Lithasia Wheatleyi, Lea, n. s 133
Cahaba River, Alabama, E. R. Showalter, M. D.
Journ. Acad. Nat. Sci., vi, 1868, p. 341.

242.

1866. LEA, ISAAC. New Unionidæ, Melanidæ, etc., chiefly of the United States. <*Journ. Acad. Nat. Sci., Phila.*, vi, pp. 5–65, with plates 1 to 21 inclusive.

See No. 219.

(See Journ. Acad. Nat. Sci., Phila., vi, p. 3.)

This with No. 243 forms 244.

The place where the Latin description is first published is given after each species.

Unio quadrilaterus, Lea, pl. 1, fig. 1 5
Proc. Acad. Nat. Sci., 1863, p. 192.

Unio Raleighensis, Lea, pl. 1, fig. 2 6
Proc. Acad. Nat. Sci., 1863, p. 191.

Unio aberrans, Lea, pl. 1, fig. 3 7
Proc. Acad. Nat. Sci., 1863, p. 191.

Unio pertenuis, Lea, pl. 2, fig. 4 8
Proc. Acad. Nat. Sci., 1863, p. 193.

Unio Charlottensis, Lea, pl. 2, fig. 5 8
Proc. Acad. Nat. Sci., 1863, p. 191.

Unio lucidus, Lea, pl. 2, fig. 6 9
Proc. Acad. Nat. Sci., 1863, p. 192.

Unio viridulus, Lea, pl. 3, fig. 7 10
Proc. Acad. Nat. Sci., 1863, p. 193.

Unio Weldonensis, Lea, pl. 3, fig. 8 11
Proc. Acad. Nat. Sci., 1863, p. 191.

Unio nasutulus, Lea, pl. 3, fig. 9 12
Proc. Acad. Nat. Sci., 1863, p. 192, as *U. nasutidus*.

1866. LEA, ISAAC—Continued.

Unio oblatus, Lea, pl. 4, fig. 10 13
Proc. Acad. Nat. Sci., 1863, p. 193, as *U. ablatus*.
Unio Livingstonensis, Lea, pl. 4, fig. 11 14
Proc. Acad. Nat. Sci., 1863, p. 192.
Unio indefinitus, Lea, pl. 4, fig. 12 15
Proc. Acad. Nat. Sci., 1863, p. 192, as *U. indefinilus*.
Unio perlatus, Lea, pl. 4, fig. 13 15
Proc. Acad. Nat. Sci., 1863, p. 193.
Unio Waccamawensis, Lea, pl. 5, fig. 14 15
Proc. Acad. Nat. Sci., 1863, p. 193.
Unio Mecklenbergensis, Lea, pl. 5, fig. 15 17
Proc. Acad. Nat. Sci., 1863, p. 191.
Unio perlucens, Lea, pl. 5, fig. 16 18
Proc. Acad. Nat. Sci., 1863, p. 193.
Unio cistellæformis, Lea, pl. 6, fig. 17 19
Proc. Acad. Nat. Sci., 1863, p. 192.
Unio Gastonensis, Lea, pl. 6, fig. 18 20
Proc. Acad. Nat. Sci., 1863, p. 191.
Unio Chathamensis, Lea, pl. 6, fig. 19 21
Proc. Acad. Nat. Sci., 1863, p. 191.
Unio squalidus, Lea, pl. 7, fig. 20 22
Proc. Acad. Nat. Sci., 1863, p. 192.
Unio curatus, Lea, pl. 7, fig. 21 23
Proc. Acad. Nat. Sci., 1863, p. 193.
Unio mediocris, Lea, pl. 7. fig. 22 24
Proc. Acad. Nat. Sci., 1863, p. 191.
Anodonta doliaris, Lea, pl. 8, fig. 23 24
Proc. Acad. Nat. Sci., 1862, p. 193, as *U. dolearis*.
Anodonta Leonensis, Lea, pl. 9, fig. 24 25
Proc. Acad. Nat. Sci., 1862, p. 169.
Anodonta Bealei, Lea, pl. 9, fig. 25 26
Proc. Acad. Nat. Sci., 1863, p. 194.
Anodonta Williamsii, Lea, pl. 10, fig. 26 27
Proc. Acad. Nat. Sci., 1862, p. 169.
Anodonta Tryonii, Lea, pl. 10, fig. 27 28
Proc. Acad. Nat. Sci., 1862, p. 169.
Anodonta Dallasiana, Lea, pl. 11, fig. 28 29
Proc. Acad. Nat. Sci., 1863, p. 190.
Monocondylæa compressa, Lea, pl. 11, fig. 29 30
Proc. Acad. Nat. Sci., 1863, p. 190.
Unio Kirkii, Lea, pl. 12, fig. 30 32
Proc. Acad. Nat. Sci., 1864, p. 108.
Unio Nyassaensis. Lea, pl. 12, fig. 32 23
Proc. Acad. Nat. Sci., 1864, p. 108.
Unio Aferulus, Lea, pl. 13, fig. 34 34
Proc. Acad. Nat. Sci., 1864, p. 109.
Spatha alata, Lea, pl. 12, fig. 31 35
Proc. Acad. Nat. Sci., 1864, p. 109.
Spatha Nyassaensis, Lea, pl. 13, fig. 33 36
Proc. Acad. Nat. Sci., 1864, p. 109.
Spatha modesta, Lea, pl. 13, fig. 35 37
Proc. Acad. Nat. Sci., 1864, p. 109.
Unio Thorntonii, Lea, pl. 14, fig. 36 38
Proc. Acad. Nat. Sci., 1857, p. 83.
Unio Mooresianus, Lea, pl. 14, fig. 37 39
Proc. Acad. Nat. Sci., 1857, p. 83.
Unio mundus, Lea, pl. 14, fig. 38 40
Proc. Acad. Nat. Sci., 1857, p. 83.
Unio tesserulæ, Lea, pl. 15, fig. 39 40
Proc. Acad. Nat. Sci., 1861, p. 392.
Unio crepulus, Lea, pl. 15, fig. 40 42
Proc. Acad. Nat. Sci., 1861, p. 39.
Unio crebrivittatus. Lea, pl. 15, fig. 41 43
Proc. Acad. Nat. Sci., 1861, p. 60.
Unio Leibii, Lea, pl. 15, fig. 42 44
Proc. Acad. Nat. Sci., 1862, p. 168.

1866. LEA, ISAAC—Continued.

Unio parvulus, Lea, pl. 16, fig. 43 45
Proc. Acad. Nat. Sci., xii, 1860, p. 307.
Unio perpurpureus, Lea, pl. 16, fig. 44 46
Proc. Acad. Nat. Sci., 1861, p. 41.
Unio biemarginatus, Lea, pl. 16, fig. 45 47
Proc. Acad. Nat. Sci., 1857, p. 83.
Unio granulatus, Lea, pl. 16, fig. 46 48
Proc. Acad. Nat. Sci., 1861, p. 60, as *U. granulatis.*
Unio germanus, Lea, pl. 19, fig. 54 49
Proc. Acad. Nat. Sci., 1861, p. 40.
Unio rasus, Lea, pl. 17, fig. 47 50
Proc. Acad. Nat. Sci., 1863, p. 189.
Unio dignatus, Lea, pl. 17, fig. 48 51
Proc. Acad. Nat. Sci., 1863, p. 189.
Unio Mosulensis, Lea, pl. 17, fig. 49 52
Proc. Acad. Nat. Sci., 1863, p. 190.
Unio Orontesensis, Lea, pl. 18, fig. 50 53
Proc. Acad. Nat. Sci., 1863, p. 190.
Unio Bourguignatianus, Lea, pl. 18, fig. 51 54
Proc. Acad. Nat. Sci., 1863, p. 189.
Unio Damascensis, Lea, pl. 18, fig. 52 55
Proc. Acad. Nat. Sci., 1863, p. 190.
Unio Syriacus, Lea, pl. 19, fig. 53 56
Proc. Acad. Nat. Sci., 1863, p. 189.
Unio tripartitus, Lea, pl. 19, fig. 55 57
Proc. Acad. Nat. Sci., 1863, p. 190.
Unio delicatus, Lea, pl. 19, fig. 56 58
Proc. Acad. Nat. Sci., 1863, p. 189.
Unio Natalensis, Lea, pl. 20, fig. 57 59
Proc. Acad. Nat. Sci., 1864, p. 113.
Unio Paramattensis, Lea, pl. 20, fig. 59 60
Proc. Acad. Nat. Sci., 1862, p. 176.
Unio Pazii, Lea, pl. 21, fig. 60 61
Proc. Acad. Nat. Sci., 1862, p. 176.
Unio Laosensis, Lea, pl. 21, fig. 61 62
Proc. Acad. Nat. Sci., 1863, p. 190.
Spatha Natalensis, Lea, pl. 20, fig. 58 64
Proc. Acad. Nat. Sci., 1864, p. 113.
Monocondylæa Mouhotiana, Lea, pl. 21, fig. 62 65
Proc. Acad. Nat. Sci., 1863, p. 190, as *M. Mouhotii.*

243.

1866. LEA, ISAAC. New Unionidæ, Melanidæ, etc., chiefly of the United States. <*Journ. Acad. Nat. Sci., Phila.*, vi, pp. 113–187, with plates 22–24, inclusive.

Separate copies printed for the author December, 1866. Continuation of No. 242, and with it forms part of No. 244.

The places where the Latin description of each species was first published is shown after each species.

Ampullaria gracilis, Lea, pl. 22, fig. 1 113
Proc. Acad. Nat. Sci., 1856, p. 110.
Ampullaria turbinis, Lea, pl. 22, fig. 2 113
Proc. Acad. Nat. Sci., 1856, p. 110.
Ampullaria tubæformis, Lea, pl. 22, fig. 3 114
Proc. Acad. Nat. Sci., 1856, p. 110.
Ampullaria aurostoma, Lea, pl. 22, fig. 4 114
Proc. Acad. Nat. Sci., 1856, p. 110.
Paludina orientalis, Lea, pl. 22, fig. 5 115
Proc. Acad. Nat. Sci., 1856, p. 110, as *Paludina Chinensis.*
Paludina Hainesiana, Lea, pl. 22, fig. 6 115
Proc. Acad. Nat. Sci, 1856, p. 109.
Paludina Swainsoniana, Lea, pl. 22, fig. 7 116
Proc. Acad. Nat. Sci., 1856, p. 110.
Paludina umbilicata, Lea, pl. 22, fig. 8 117
Proc. Acad. Nat. Sci, 1856, p. 109.

1866. LEA, ISAAC—Continued.

Paludina Ingallsiana, Lea, pl. 22, fig. 9 117
Proc. Acad. Nat. Sci., 1856, p. 110.
Bivulina maculata, Lea, pl. 22, fig. 10 118
Proc. Acad. Nat. Sci., 1856, p. 110, under name of *Paludomus maculata*, Lea.
Bithinia Siamensis, Lea, pl. 22, fig. 11 118
Proc. Acad. Nat. Sci., 1856, p. 110.
Bithinia globula, Lea, pl. 22, fig. 12 119
Proc. Acad. Nat. Sci., 1856, p. 110.
Assiminea carinata, Lea, pl. 22, fig. 13 119
Proc. Acad. Nat. Sci., 1856, p. 111.
Pachychilus parvum, Lea, pl. 22, fig. 14 120
Proc. Acad. Nat. Sci., 1856, p. 145.
Melania Boninensis, Lea, pl. 22, fig. 15 121
Proc. Acad. Nat. Sci., 1856, p. 145.
Melania rubida, Lea, pl. 22, fig. 16 121
Proc. Acad. Nat. Sci., 1856, p. 145.
Melania Newcombii, Lea, pl. 22, fig. 17 122
Proc. Acad. Nat. Sci., 1856, p. 145.
Melania Hainesiana, Lea, pl. 22, fig. 18 122
Proc. Acad. Nat. Sci., 1856, p. 144.
Melania Mauiensis, Lea, pl. 22, fig. 19 123
Proc. Acad. Nat. Sci., 1856, p. 145.
Melania Ningpoensis, Lea, pl. 22, fig. 20 124
Proc. Acad. Nat. Sci., 1856, p. 144.
Melania Myersiana, Lea, pl. 22, fig. 21 124
Proc. Acad. Nat. Sci., 1856, p. 145.
Melania Housei, Lea, pl. 22, fig. 22 125
Proc. Acad. Nat. Sci., 1856, p. 144.
Melania affinis, Lea, pl. 22, fig. 23 125
Proc. Acad. Nat. Sci., 1856, p. 145.
Melania Manillaensis, Lea, pl. 22, fig. 24 126
Proc. Acad. Nat. Sci., 1856, p. 145, under the name *M. australis*, Lea.
Melania lyræformis, Lea, pl. 22, fig. 25 126
Proc. Acad. Nat. Sci., 1856, p. 145.
Melania Planensis, Lea, pl. 22, fig. 26 127
Proc. Acad. Nat. Sci., 1858, p. 118.
Melania Verreauxiana, Lea, pl. 22, fig. 27 127
Proc. Acad. Nat. Sci., 1856, p. 144, as *M. Verreauiana*.
Melania fraterna, Lea, pl. 22, fig. 28 128
Proc. Acad. Nat. Sci., 1856, p. 144.
Melania bullata, Lea, pl. 22, fig. 29 129
Proc. Acad. Nat. Sci., 1856, p. 145.
Goniobasis Romæ, Lea, pl. 23, fig. 30 129
Proc. Acad. Nat. Sci., 1864, p. 111.
Goniobasis pupæformis, Lea, pl. 23, fig. 31 130
Proc. Acad. Nat. Sci., 1864, p. 112.
Goniobasis pulla, Lea, pl. 23, fig. 32 130
Proc. Acad. Nat. Sci., 1864, p. 112.
Goniobasis quadricincta, Lea, pl. 23, fig. 33 131
Proc. Acad. Nat. Sci., 1864, p. 112.
Goniobasis subrhombica, Lea, pl. 23, fig. 34 132
Proc. Acad. Nat. Sci., 1864, p. 111.
Goniobasis Cumberlandensis, Lea, pl. 23, fig. 35 132
Proc. Acad. Nat. Sci., 1863, p. 155, as *G. cumberlandiensis*.
Goniobasis Louisvillensis, Lea, pl. 23, fig. 36 133
Proc. Acad. Nat. Sci., 1863, p. 155.
Goniobasis lithasioides, Lea, pl. 23, fig. 37 133
Proc. Acad. Nat. Sci., 1863, p. 154, as *G. lithasiodes*.
Goniobasis rittatella, Lea, pl. 23, fig. 38 134
Proc. Acad. Nat. Sci., 1863, p. 155.
Goniobasis infantula, Lea, pl. 23, fig. 39 135
Proc. Acad. Nat. Sci., 1863, p. 155.
Goniobasis Milesii, Lea, pl. 23, fig. 40 135
Proc. Acad. Nat. Sci., 1863, p. 154.
Goniobasis informis, Lea, pl. 23, fig. 41 136
Proc. Acad. Nat. Sci., 1863, p. 154.

1866. LEA, ISAAC—Continued.

Goniobasis aterina, Lea. pl. 23, fig. 42 136
Proc. Acad. Nat. Sci., 1863, p. 155.
Goniobasis Emeryensis, Lea, pl. 23, fig. 43 137
Proc. Acad. Nat. Sci., 1864, p. 3.
Goniobasis Smithsoniana, Lea, pl. 23, fig. 44 137
Proc. Acad. Nat. Sci., 1864, p. 112.
Goniobasis Decampii, Lea, pl. 23, fig. 45 138
Proc. Acad. Nat. Sci., 1863, p. 154.
Goniobasis fraterna, Lea, pl. 23, fig. 46 139
Proc. Acad. Nat. Sci., 1864, p. 111.
Goniobasis porrecta, Lea, pl. 23, fig. 47 139
Proc. Acad. Nat. Sci., 1863, p. 155.
Goniobasis viridistriata, Lea, pl. 23, fig. 48 140
Proc. Acad. Nat. Sci., 1864, p. under the name *G. viridostriatis*.
Goniobasis Albanyensis, Lea, pl. 23, fig. 49 141
Proc. Acad. Nat. Sci., 1864, p. 4.
Trypanostoma subrobustum, Lea, pl. 23, fig. 50 141
Proc. Acad. Nat. Sci., 1864, p. 4.
Trypanostoma cylindraceum, Lea, pl. 23, fig. 51 142
Proc. Acad. Nat. Sci., 1864, p. 4.
Trypanostoma Roanense, Lea, pl. 23, fig. 52 142
Proc. Acad. Nat. Sci., 1864, p. 4.
Trypanostoma curtatum, Lea, pl. 23, fig. 53 143
Proc. Acad. Nat. Sci., 1863, p. 155.
Trypanostoma napoideum, Lea, pl. 23, fig. 54 143
Proc. Acad. Nat. Sci., 1864, p. 112.
Trypanostoma Lyonii, Lea, pl. 23, fig. 55 144
Proc. Acad. Nat. Sci., 1863, p. 155.
Trypanostoma affine, Lea, pl. 23, fig. 57 145
Proc. Acad. Nat. Sci., 1864, p. 4.
Trypanostoma univittatum, Lea, pl. 23, fig. 58 145
Proc. Acad. Nat. Sci. 1864, p. 112.
Trypanostoma Lesleyi, Lea, pl. 23, fig. 59 146
Proc. Acad. Nat. Sci., 1864, p. 4.
Trypanostoma cinctum, Lea, pl. 23, fig. 60 147
Proc. Acad. Nat. Sci., 1864, p. 112.
Trypanostoma Currierianum, Lea, pl. 23, fig. 61 147
Proc. Acad. Nat. Sci., 1863, p. 155.
Trypanostoma carinatum, Lea, pl. 23, fig. 62 148
Proc. Acad. Nat. Sci. 1864, p. 4.
Trypanostoma corneum Lea, pl. 23, fig. 63 148
Proc. Acad. Nat. Sci., 1864, p. 112.
Schizostoma Showalterii, Lea, pl. 23, fig. 56 149
Proc. Acad. Na. Sci. 1864, p. 112.
Eurycœlon umbonatum, Lea, pl. 23, fig. 64 150
Proc. Acad. Nat. Sci. 1864, p. 3, under the name *Goniobasis umbonata*.
Strephobasis Lyonii, Lea, pl. 23, fig. 65 151
Proc. Acad. Na. Sci. 1864, p. 5.
Trypanostoma venustum pl. 23, fig. 66 151
Proc. Acad. Nat. Sci., 1864, p. 112.
Genus MESESCHIZA, Lea 152
Proc. Acad. Nat. Sci., 1864, p. 2.
Meseschiza Grosvenorii, Lea, pl. 23, fig. 67 152
Proc. Acad. Nat. Sci., 1864, p. 2.
Megasystropha Newberryi, Lea, pl. 23, fig. 68 153
Proc. Acad. Nat. Sci. 1858, p. 41, under name *Planorbis Newberryi*, Lea.
Enumeration of species sent by Dr. John B. Trask, of San Francisco, California, in February 1856 154–155
Genus POMPHOLYX, Lea 156
Proc. Acad. Nat. Sci., 1856, p. 80.
Pompholyx effusa, Lea, pl. 23, fig. 69 156
Proc. Acad. Nat. Sci., 1856, p. 80.
Planorbis Traskii, Lea, pl. 23, fig. 70 157
Proc. Acad. Nat. Sci., 1856, p. 80.
Planorbis Wheatleyi, Lea, pl. 23, fig. 71 158
Proc. Acad. Nat. Sci., 1858, p. 41.

1866. LEA, ISAAC—Continued.

Planorbis Billingsii, Lea, pl. 23, fig. 72 159
Proc. Acad. Nat. Sci., 1864, p. 111.
Lymnæa Haydenii, Lea, pl. 24, fig. 73 159
Proc. Acad. Nat. Sci., 1858, p. 166.
Lymnæa proxima, Lea, pl. 24, fig. 74 160
Proc. Acad. Nat. Sci., 1856, p. 80.
Lymnæa arctica, Lea, pl. 24, fig. 75 160
Proc. Acad. Nat. Sci., 1864, p. 113.
Lymnæa Smithsoniana, Lea, pl. 24, fig. 76 161
Proc. Acad. Nat. Sci., 1864, p. 113.
Lymnæa Jamesii, Lea, pl. 24, fig. 77 161
Proc. Acad. Nat. Sci., 1864, p. 113.
Lymnæa Tryoniana, Lea, pl. 24, fig. 78 162
Proc. Acad. Nat. Sci., 1864, p. 113, under the name *Lymnæa Traskii*.
Lymnæa Lecontii, Lea, pl. 24, fig. 79 162
Proc. Acad. Nat. Sci., 1864, p. 113.
Physa Traskii, Lea, pl. 24, fig. 80 163
Proc. Acad. Nat. Sci., 1864, p. 115.
Physa Warreniana, Lea, pl. 24, fig. 81 164
Proc. Acad. Nat. Sci., 1864, p. 115.
Physa Altonensis, Lea, pl. 24, fig. 82 164
Proc. Acad. Nat. Sci., 1864, p. 114.
Physa Halei, Lea, pl. 24, fig. 83 165
Proc. Acad. Nat. Sci., 1864, p. 114.
Physa Haenii, Lea, pl. 24, fig. 84 165
Proc. Acad. Nat. Sci., 1864, p. 115.
Physa Dorbigniana, Lea, pl. 24, fig. 85 166
Proc. Acad. Nat. Sci., 1864, p. 115, under the name *P. striata*.
Physa tenuissima, Lea, pl. 24, fig. 86 167
Proc. Acad. Nat. Sci., 1864, p. 114.
Physa Safordii, Lea, pl. 24, fig. 87 167
Proc. Acad. Nat. Sci., 1864, p. 115.
Physa Blandii, Lea, pl. 24, fig. 88 168
Proc. Acad. Nat. Sci., 1864, p. 116.
Physa venusta, Lea, pl. 24, fig. 89 168
Proc. Acad. Nat. Sci., 1864, p. 116.
Physa crocata, Lea, pl. 24, fig. 90 169
Proc. Acad. Nat. Sci., 1864, p. 114.
Physa Smithsoniana, Lea, pl. 24, fig. 91 169
Proc. Acad. Nat. Sci., 1864, p. 115.
Physa Showalterii, Lea, pl. 24, fig. 92 170
Proc. Acad. Nat. Sci., 1864, p. 115.
Physa Nuttallii, Lea, pl. 24, fig. 93 171
Proc. Acad. Nat. Sci., 1864, p. 116.
Physa anatina, Lea, pl. 24, fig. 94 171
Proc. Acad. Nat. Sci., 1864, p. 115.
Physa Forsheyi, Lea, pl. 24, fig. 95 172
Proc. Acad. Nat. Sci., 1864, p. 114.
Physa Whitei, Lea, pl. 24, fig. 96 172
Proc. Acad. Nat. Sci., 1864, p. 114.
Physa Niagarensis, Lea, pl. 24, fig. 97 173
Proc. Acad. Nat. Sci., 1864, p. 114.
Physa brevispira, Lea, pl. 24, fig. 98 173
Proc. Acad. Nat. Sci., 1864, p. 116.
Physa Febigerii, Lea, pl. 24, fig. 99 174
Proc. Acad. Nat. Sci., 1864, p. 114.
Physa Grosvenorii, Lea, pl. 24, fig. 100 175
Proc. Acad. Nat. Sci., 1864, p. 114.
Physa Nicklinii, Lea, pl. 24, fig. 101 175
Proc. Acad. Nat. Sci., 1864, p. 114.
Physa hordacea, Lea, pl. 24, fig. 102 176
Proc. Acad. Nat. Sci., 1864, p. 116.
Physa triticea, Lea, pl. 24, fig. 103 176
Proc. Acad. Nat. Sci., 1856, p. 80.

1866. LEA, ISAAC—Continued.

Physa parva, Lea, pl. 24, fig. 104 177
Proc. Acad. Nat. Sci., 1864, p. 115.

Succinea Wilsonii, Lea, pl. 24, fig. 105 177
Proc. Acad. Nat. Sci., 1864, p. 109.

Succinea pellucida, Lea, pl. 24, fig. 106 178
Proc. Acad. Nat. Sci., 1864, p. 110.

Succinea Forsheyi, Lea, pl. 24, fig. 107 178
Proc. Acad. Nat. Sci., 1864, p. 109.

Succinea Grosvenorii, Lea, pl. 24, fig. 108 179
Proc. Acad. Nat. Sci., 1864, p. 109.

Succinea Mooresiana, Lea, pl. 24, fig. 109 179
Proc. Acad. Nat. Sci., 1864, p. 109.

Succinea Halei, Lea, pl. 24, fig. 110 180
Proc. Acad. Nat. Sci., 1864, p. 109, under the name *Succinea Haleana*.

Remarks on Dr. Binney, Dr. Gould, and Mr. W. G. Binney's treatment of the following species:

Succinea aperta, Lea; *S. aurea*, Lea; *S. retusa*, Lea; *S. Wardiana*, Lea; *S. Totteniana*, Lea; *S. Nuttalliana*, Lea; *S. Oregonensis*, Lea; *S. inflata*, Lea; pp. 180–182.

Helix Clarkii, Lea, pl. 24, fig. 111 182
Proc. Acad. Nat. Sci., 1858, p. 41.

Helix (Polygyra) Couchiana, Lea, pl. 24, fig. 112 182
Proc. Acad. Nat. Sci., 1857, p. 102.

Helix (Polygyra) Tamaulipasensis, Lea, pl. 24, fig. 113 183
Proc. Acad. Nat. Sci., 1857, p. 102.

Paludina Milesii, Lea, pl. 24, fig. 114 184
Proc. Acad. Nat. Sci., 1863, p. 156.

Paludina Elliottii, Lea, pl. 24, fig. 115 184
Proc. Acad. Nat. Sci., 1858, p. 166.

Ancylus Newberryi, Lea, pl. 24, fig. 116 185
Proc. Acad. Nat. Sci., 1858, p. 166.

Ancylus patelloides, Lea, pl. 24, fig. 117 185
Proc. Acad. Nat. Sci., 1856, p. 80.

Amnicola Currieriana, Lea, pl. 24, fig. 118 186
Proc. Acad. Nat. Sci., 1863, p. 156.

244.

1867. LEA, ISAAC. Observations | on the | Genus Unio, | together with | Descriptions of New Species in the Family Unionidæ, | and Descriptions of New Species of the | Melanidæ, Limnæidæ, Paludinæ and Helicidæ, | read before the Academy of Natural Sciences of Philadelphia, and | published in their Journal, | by | Isaac Lea, LL. D., | Vice-President of the American Philosophical Society, etc. etc. | with twenty-four plates. | Vol. XI. | Philadelphia: | Printed for the author. 4°. pp. 146, with plates 1-24.

A Reprint of Nos. 242, 243.

245.

1867. LEA, ISAAC. Index | to Vol. I. to XI. of | Observations | on the | Genus Unio, | together with | Description of New Species of the Family Unionidæ | and | Descriptions of New Species of the Melanidæ, | Paludinæ, Helicidæ, Etc. | Read before the American Philosophical Society and the Academy of Natural | Sciences of Philadelphia, from 1827 to 1863. | by | Isaac Lea, LL. D., Etc. | Philadelphia: | Printed for the Author | by T. K. Collins, 705 Jayne Street. | 1867.

4°. pp. 63.

Deposited in the Library of the Academy of Natural Sciences, Phila., in 1867. (See *Proc. Acad. Nat. Sci.*, xix, p. 271.)

"Having constantly felt the inconvenience of reference to former papers issued in previous volumes of "Observations on the Genus Unio," &c., I determined, after issuing my eleventh volume, to have an *Index* for the whole, by way of easy reference to all my new species described therein, as well also to every species referred to; also to the soft parts and embryonic forms, thus making the whole more available to the student. My own time

1867. LEA, ISAAC—Continued.

being too much occupied with original investigations, I applied to my friend, James Lewis, M. D., of Mohawk, N. Y., whose thorough knowledge in this branch of Natural History is so well known. Many of the volumes already testify to his friendly aid from time to time—at once he acceded to my wishes, and the result is now, I believe, a perfect *Index*." Notice p. 3.

SECTION I—Unionidæ of North America.

Subsections—Unio, Margaritana, Anodonta.

SECTION II—Unionidæ of Mexico and Central America.

Subsections—Unio, Anodonta.

SECTION III—Exotic Unionidæ.

Subsections—Triquetra, Prisodon, Unio, Margaritana, Plagiodon, Monocondylœa, Dipsas, Anodonta, Iridina, Spatha, Mycetopus.

SECTION IV—Unionidæ—Synonyms, Species of Other Authors, and Obsolete Nomenclature.

Subsections—Alasmodonta, Anodonta, Anodontites, Castalia, Chama, Cristaria, Diplodon, Hyria, Margaritana, Mya, Mytilus, Symphynota, Unio.

SECTION V—Operculated Aquatic Univalves.

Subsections—Ampullaria, Amnicola, Anculosa, Anculotus, Assiminea, Basistoma, Bythinia, Eurycœlon, Goniobasis, Io, Lithasia, Melania, Melanopsis, Meseschiza, Neritina, Pachychilus, Paludina, Paludomus, Rivulina, Schizostoma, Strephobasis, Trypanostoma, Valvata.

SECTION VI—Limnæidæ.

Subsections—Ancylus, Lymnæa, Megasystropha, Physa, Planorbis, Pompholix.

SECTION VII—Colimaces.

Subsections—Achatina, Auricula, Bulimus, Cyclostoma, Helicina, Helix (Polygyra and Carocolla), Megaspira, Succinea.

SECTION VIII—Miscellaneous and Unclassified References. Alphabetically arranged.

Errata et Corrigenda of Vols. I to XI.

Appendix.

246.

1867. LEA, ISAAC. On two New Minerals from Chester Co., Penn. <*Proc. Acad. Nat. Sci., Phila.*, xix, pp. 44–45. Separate, without cover, 8°, pp. 2.

Read before the Academy of Natural Sciences April 9, 1867, and ordered to be published April 30, 1867. This forms part of No. 256.

Lealeyite.

Pattersonite.

247.

1867. LEA, ISAAC. Descriptions of Five New Species of Unionidæ and One Paludina of the United States. <*Proc. Acad. Nat. Sci., Phila.*, xix, p. 81.

Read before the Academy of Natural Sciences May 21, 1867, and ordered to be printed May 28, 1867. This forms part of No. 256.

Unio Bisselianus, Lea, n. s. 81
Bissel's Pond, Charlotte, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., 1868, p. 277.

Unio Clinchensis, Lea, n. s. 81
Clinch River, Tenn., Pres. Estabrook; and French Broad River, Dr. Edgar.
Journ. Acad. Nat. Sci., 1868, p. 278.

Unio Jewettii, Lea, n. s. 81
Florida, Col. Jewett.
Journ. Acad. Nat. Sci., vi, 1868, p. 276.

Margaritana Columbensis, Lea, n. s. 81
Tombigbee River, near Columbus, Miss., W. Spillman, M. D.

Anodonta Youconensis, Lea, n. s. 81
Headwaters of the Youcon, Arctic America.
Journ. Acad. Nat. Sci., vi, 1868, p. 287, spelled *Youkanensis*.

Paludina Spillmanii, Lea, n. s. 81
Jackson Co., Alabama, W. Spillman, M. D.
Journ. Acad. Nat. Sci., vi, 1868, p. 343.

248.

1868. LEA, ISAAC. Description of Nine Species of Unionidæ from Lake Nicaragua, Central America. <*Proc. Acad. Nat. Sci., Phila.*, xx, pp. 94–96. March, 1868.

Read before the Academy of Natural Sciences March 10, 1868, and ordered to be published March 31, 1868. This forms part of No. 256.

1868. LEA, ISAAC—Continued.

Remarks upon, with list of inequivalve, Unionidae.....94-95

Unio Nicaraguensis, Lea, n. s..... 95
Lake Nicaragua, Central America, Mr. W. M. Gabb.
Journ. Acad. Nat. Sci., vi, 1868, p. 296.

Unio Granadensis, Lea, n. s..... 95
Lake Nicaragua, Central America, Col. E. Jewett & Mr. W. M. Gabb.
Journ. Acad. Nat. Sci., vi, 1868, p. 293.

Unio encarpus, Lea, n. s..... 95
Lake Nicaragua, Cent. America, Mr. W. M. Gabb.
Journ. Acad. Nat. Sci., vi, 1868, p. 294.

Unio Gabbianus, Lea, n. s..... 95
Lake Nicaragua, Cent. America, Col. E. Jewett and Mr. W. M. Gabb.
Journ. Acad. Nat. Sci., vi, 1868, p. 295.

Anodonta Bridgesii, Lea, n. s..... 95
Lake Nicaragua, Cent. America, Mr. Thomas Bridges.
Journ. Acad. Nat. Sci., vi, 1868, p. 291.

Anodonta inæquivalva, Lea, n. s..... 95
Lake Nicaragua, Cent. America, Mr. W. M. Gabb.
Journ. Acad. Nat. Sci., vi, 1868, p. 292.

Anodonta Jewettiana, Lea, n. s..... 95
Lake Nicaragua, Cent. America, Col. E. Jewett.
Journ. Acad. Nat. Sci., vi, 1868, p. 289, spelled Jewettii.

Anodonta lenticularis, Lea, n. s..... 95
Lake Nicaragua, Cent. Amer., Mr. W. M. Gabb.
Journ. Acad. Nat. Sci., vi, 1868, p. 290.

Anodonta Granadensis, Lea, n. s..... 95
Lake Nicaragua, Cent. America, Col. E. Jewett.
Journ. Acad. Nat. Sci., vi, 1868, p. 288.

249.

1868. LEA, ISAAC. Description of Sixteen New Species of the Genus Unio of the United States. <*Proc. Acad. Nat. Sci., Phila.*, xx, pp. 143–145. April, 1868.

Read before the Academy of Natural Sciences April 7, 1868, and ordered to be published April 28, 1868. This forms part of No. 256.

Unio Murrayensis, Lea, n. s..... 143
Murray County, Georgia, Maj. T. C. Downie; Etowah River, Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., vi, 1868, p. 303.

Unio fassinans, Lea, n. s..... 143
Headwaters of Holston River, Washington Co., Va., Prof. E. D. Cope.
Journ. Acad. Nat. Sci., vi, 1868, p. 305.

Unio sparus, Lea, n. s..... 143
Swamp Creek, North Georgia, Maj. T. C. Downie.
Journ. Acad. Nat. Sci., vi, 1868, p. 306.

Unio Copei, Lea, n. s..... 144
Headwaters of Holston River, Smith Co., Va., Prof. E. D. Cope.
Journ. Acad. Nat. Sci., vi, 1868, p. 307.

Unio cylindrellus, Lea, n. s..... 144
Duck Creek, Tenn.; Swamp Creek, Murray Co., Ga., Major Downie; and North Alabama, Prof. Tuomey.
Journ. Acad. Nat. Sci., vi, 1868, p. 308.

Unio difficilis, Lea, n. s..... 144
Swamp Creek, Ga., Major Downie; Holston River, Washington Co., Prof. Cope.
Journ. Acad. Nat. Sci., vi, 1868, p. 311.

Unio Topekaensis, n. s..... 144
Topeka, Kansas, Prof. Daniels; Little Arkansas, Dr. Le Conte.
Journ. Acad. Nat. Sci., vi, 1868, p. 313.

Unio Brazosensis, n. s..... 144
Dallas Co., Texas, Prof. Forshey; Brazos River, Dr. Lincecum.
Journ. Acad. Nat. Sci., vi, 1868, p. 309.

Unio Lincecumii, n. s..... 144
Dallas County, Texas, Prof. Forshey; Brazos River, Texas, Dr. G. Lincecum.
Journ. Acad. Nat. Sci., vi, 1868, p. 312.

1868. LEA, ISAAC—Continued.

Unio corvinus, n. s. 144
Flint River, Georgia, J. C. Plant and Dr. Neisler; Neuse River, N. C., Prof. Emmons.
Journ. Acad. Nat. Sci., vi, 1868, p. 310.

Unio corvunculus, n. s. 144
Flint River, Ga., J. C. Plant and Dr. Neisler; Darien, J. H. Couper.
Journ. Acad. Nat. Sci., vi, 1868, p. 314.

Unio planior, n. s. 145
Tennessee, Mr. H. Moores; Headwaters Holston River, Washington Co., Virginia, Prof. Cope.
Journ. Acad. Nat. Sci., 1868, p. 316.

Unio vallatus, n. s. 145
Alabama River, Dr. Showalter.
Journ. Acad. Nat. Sci., vi, 1868, p. 315.

Unio refulgens, n. s. 145
Oktibbeha River, Lauderdale Co., Miss., W. Spillman, M. D.
Journ. Acad. Nat. Sci., vi, 1868, p. 317.

Unio Uharéensis, Lea, n. s. 145
Uharee River, Montgomery Co., N. C., F. A. Genth, M. D.
Journ. Acad. Nat. Sci., vi, 1868, p. 304.

Unio sphærious, Lea, n. s. 145
Pearl River at Jackson, Miss., C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1868, p. 319.

250.

1868. LEA, ISAAC. Notes on some singular forms of Chinese species of Unio. <*Proc. Acad. Nat. Sci., Phila.*, xx, pp. 145–146.

Read before the Academy of Natural Sciences April 21, 1868, and ordered to be published April 28, 1868. This forms part of No. 256.

Criticism on a paper, "Chinese Shells," by Dr. Baird and Mr. H. Adams, in Proceedings of the Zoological Society of London, May 9, 1867.

Unio Douglasiæ, Gray 145
A synonym of *Unio Murchisonianus*, Lea.

Anodonta tenuis, Gray 146
A synonym of *Dipsas discoidea*, Lea.

251.

1868. LEA, ISAAC. Descriptions of four new species of Exotic Unionidæ. <*Proc. Acad. Nat. Sci., Phila.*, xx, p. 150.

Read before the Academy of Natural Sciences May 12, 1868, and ordered to be published May 26, 1868. This forms part of No. 256.

Anodonta Strebelii, Lea, n. s. 150
Vera Cruz, Mexico, Dr. G. Strebel, per Smithsonian Inst.
Journ. Acad. Nat. Sci., vi, 1868, p. 322.

Unio Veracruzensis, Lea, n. s. 150
Vera Cruz, Mexico, Dr. G. Strebel, per Smithsonian Inst.
Journ. Acad. Nat. Sci., vi, 1868, p. 320.

Unio prunoides, Lea, n. s. 150
Journ. Acad. Nat. Sci., vi, 1868, p. 323.

Unio Chinensis, Lea, n. s. 150
Journ. Acad. Nat. Sci., vi, 1868, p. 325.

252.

1868. LEA, ISAAC. Descriptions of Twenty-six New Species of Melanidæ of the United States. <*Proc. Acad. Nat. Sci., Phila.*, xx, pp. 151–153. May, 1868.

Read before the Academy of Natural Sciences May 12, 1868, and ordered to be published May 26, 1868. This forms part of No. 256.

Goniobasis Wheatleyi, Lea, n. s. 151
Coosa River, Alabama, Dr. Showalter.
Journ. Acad. Nat. Sci., vi, 1868, p. 328.

Goniobasis similis, n. s. 151
Connesauga Creek, Georgia, Major T. C. Downie.
Journ. Acad. Nat. Sci., vi, 1868, p. 328.

1868. LEA, ISAAC—Continued.

Goniobasis sulcata, n. s 151
Cahawba River, Alabama, Dr. Showalter.
Journ. Acad. Nat. Sci., vi, 1868, p. 329.

Goniobasis arata, n. s 151
Connesauga Creek, Georgia, Maj. T. C. Downie.
Journ. Acad. Nat. Sci., vi, 1868, p. 329.

Goniobasis Gesnerii, n. s 151
Uchee River, Alabama, Mr. W. Gesner.
Journ. Acad. Nat. Sci., vi, 1868, p. 330.

Goniobasis tenebrosa, n. s 151
Connesauga Creek, Georgia, Maj. F. C. Downie.
Journ. Acad. Nat. Sci., vi, 1868, p. 330, under the name *G. Whitfieldensis*.

Goniobasis bifasciata, n. s 151
Jackson Co., Alabama, Dr. Spillman.
Journ. Acad. Nat. Sci., vi, 1868, p. 331.

Goniobasis clathrata, n. s 151
Jackson Co., Ala., Dr. Spillman.
Journ. Acad. Nat. Sci., vi, 1868, p. 331.

Goniobasis pulchella, n. s 151
North Alabama, Dr. Spillman.
Journ. Acad. Nat. Sci., vi, 1868, p. 332, under name of *G. Gouldiana*.

Goniobasis luteocella, n. s 151
Connesauga Creek, Georgia, Maj. T. C. Downie.
Journ. Acad. Nat. Sci., vi, 1868, p. 332.

Goniobasis Connesaugaensis, n. s 152
Connesauga Creek, Georgia, Maj. T. C. Downie.
Journ. Acad. Nat. Sci., vi, 1868, p. 333.

Goniobasis contigua, n. s 152
Connesauga Creek, Georgia, Maj. T. C. Downie.
Journ. Acad. Nat. Sci., vi, 1868, p. 334.

Goniobasis Murrayensis, n. s 152
Swamp Creek, Murray Co., Ga., Maj. T. C. Downie.
Journ. Acad. Nat. Sci., vi, 1868, p. 334.

Goniobasis granatoides, n. s 152
Connesauga Creek, Georgia, Maj. T. C. Downie.
Journ. Acad. Nat. Sci., vi, 1868, p. 335.

Goniobasis clavula, n. s 152
Jackson Co., Alabama, Dr. Spillman.
Journ. Acad. Nat. Sci., vi, 1868, p. 335.

Goniobasis cochliaris, n. s 152
Shelby Co., Alabama, Maj. T. C. Downie.
Journ. Acad. Nat. Sci., vi, 1868, p. 336.

Goniobasis venusta, n. s 152
Coosa River, Alabama, Dr. Showalter.
Journ. Acad. Nat. Sci., vi, 1868, p. 336.

Goniobasis ornata, n. s 152
Connesauga Creek, Georgia, Maj. T. C. Downie.
Journ. Acad. Nat. Sci., vi, 1868, p. 337.

Trypanostoma nuciforme, n. s 152
Connesauga Creek, Georgia, Maj. T. C. Downie.
Journ. Acad. Nat. Sci., vi, 1868, p. 337.

Trypanostoma castaneum, n. s 152
Coosa River, Alabama, Dr. Showalter.
Journ. Acad. Nat. Sci., vi, 1868, p. 338.

Trypanostoma Wheatleyi, n. s 152
Coosa River, Alabama, Dr. Showalter.
Journ. Acad. Nat. Sci., vi, 1868, p. 338.

Trypanostoma terebrale, n. s 152
Jackson Co., Alabama, Dr. W. Spillman.
Journ. Acad. Nat. Sci., vi, 1868, p. 339.

Lithasia purpurea, n. s 152
Cahawba River at Centreville, Bibb Co., Ala., Dr. Showalter.
Journ. Acad. Nat. Sci., vi, 1868, p. 340.

Lithasia curta, n. s 152
North Alabama, Prof. Tuomey and Dr. Spillman; Tuscumbia, B. Pybus.
Journ. Acad. Nat. Sci., vi, 1868, p. 340.

1868. LEA, ISAAC—Continued.

Schizostoma Wheatleyi, n. s. 153
Coosa River, Dr. Showalter.
Journ. Acad. Nat. Sci., vi, 1868, p. 342.

Anculosa Downiei, n. s. 153
Connesauga Creek, Georgia, Maj. T. C. Downie; Coosa River, Alabama, Dr. Showalter.
Journ. Acad. Nat. Sci., vi, 1868, p. 342.

253.

1868. LEA, ISAAC. Descriptions of seven new species of Unio from North Carolina. <*Proc. Acad. Nat. Sci., Phila.*, xx, pp. 160–161.

Read before the Academy of Natural Sciences, June 2, 1868, and ordered to be published June 30, 1868. This forms part of No. 256.

Unio dorsatus, Lea, n. s. 160
Catawba River, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1868, p. 300.

Unio datus, Lea, n. s. 161
Paw Creek, Beaver Creek, and Long Creek, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., 1868, p. 299.

Unio Beaverensis, n. s. 161
Beaver and Long Creeks, N. C., C. M. Wheatly; Carter's Creek, Ga., J. Postell.
Journ. Acad. Nat. Sci., vi, 1868, p. 297.

Unio nubilus, n. s. 161
Paw Creek, Mecklenberg Co., N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., 1868, p. 298.

Unio Pawensis, n. s. 161
Paw Creek, Beaver Creek, and Catawba River, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., 1868, p. 302.

Unio humerosus, n. s. 161
Charlotte, Mecklenberg Co., N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1868, p. 301.

Unio genuinus, n. s. 161
Bissel's Pond, Charlotte, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., vi, 1868, p. 305.

254.

1868. LEA, ISAAC. Description of two new species of Unionidæ from Equador. <*Proc. Acad. Nat. Sci., Phila.*, xx, pp. 161–162.

Read before the Academy of Natural Sciences, June 2, 1868, and ordered to be published June 30, 1868. This forms part of No. 256.

Unio Ortonii, n. s. 161
River Napo, Equador, S. Amer., Prof. Orton.
Journ. Acad. Nat. Sci., vi, 1868, p. 321.

Anodonta Napoensis, n. s. 162
River Napo, Equador, S. Amer., Prof. Orton.
Journ. Acad. Nat. Sci., vi, 1868, p. 324.

255.

1868. LEA, ISAAC. Descriptions of Unionidæ from the Lower Cretaceous Formation of New Jersey. <*Proc. Acad. Nat. Sci., Phila.*, xx, pp. 162–164.

Read before the Academy of Natural Sciences, June 9, 1868, and ordered to be published June 30, 1868. This forms part of No. 256.

The descriptions of the species are preceded by remarks upon the formation from which the shells were procured.

Unio nasutoides, Lea, n. s. 163
Unio radiatoides, Lea, n. s. 163
Unio subrotundoides, Lea, n. s. 163
Unio carrioeoides, Lea, n. s. 163
Unio humerosoides, Lea, n. s. 163
Unio Roanokoides, Lea, n. s. 164
Unio ligamentinoides, Lea, n. s. 164
Unio alatoides, Lea, n. s. 164
Anodonta grandioides, Lea, n. s. 164
Anodonta corpulentoides, Lea, n. s. 164

256.

1868. LEA, ISAAC. Descriptions of Twelve New Species of Unionidæ | from South America. | Notes on some members of the Feldspar Family. | Description of Two New Species of the Genus | Lithasia. | Descriptions of Five New Species of the Genus Unio. | On Two New Minerals from Chester Co., Penn. | Descriptions of Five New Species of Unionidæ and | One Paludina of the United States. | Descriptions of Nine Species of Unionidæ from Lake | Nicaragua, Central America. | Descriptions of Sixteen New Species of the Genus | Unio of the United States. | Notes on some Singular forms of Chinese Species of | Unio. | Descriptions of Four New Species of Exotic Unionidæ. | Descriptions of Twenty-six New Species of Melanidæ | of the United States. | Descriptions of Seven New Species of Unio from | North Carolina. | Descriptions of Two New Species of Unionidæ from | Equador. | Descriptions of Unionidæ from the Lower Creta- | ceous Formation of New Jersey. | — | by | Isaac Lea, LL. D. | — | Philadelphia: | Merrihew & Son, Printers, | No. 243 Arch Street, | 1868. 8°. pp. 32.

This consists of Numbers 238, 239, 240, 241, 246, 247, 248, 249, 250, 251, 253, 253, 254, and 255.

257.

1868. LEA, ISAAC. New Unionidæ, Melanidæ, etc., chiefly of the United States. <*Journ. Acad. Nat. Sci. Phila.*, vi, New Series, pp. 249–302. Plates 29 to 45 inclusive.

Read before the Academy of Natural Sciences, June 2, 1868. Extra copies printed for the author, December, 1868. (See *Journ. Acad. Nat. Sci., Phila.*, vi, n. s., p. 3.) This, with No. 258, forms No. 259.

The place where the Latin descriptions of these species first occurs is given after each species.

Unio Homsensis, Lea, pl. 29, fig. 63 249
Proc. Acad. Nat. Sci., 1864, p. 285.
Unio Orphaensis, Lea, pl. 29, fig. 64 250
Proc. Acad. Nat. Sci., 1864, p. 285.
Unio Kullethensis, Lea, pl. 29, fig. 65 251
Proc. Acad. Nat. Sci., 1864, p. 285.
Unio Mardinensis, Lea, pl. 30, fig. 66 252
Proc. Acad. Nat. Sci., 1864, p. 286.
Monocondylæa Mardinensis, Lea, pl. 30, fig. 67 253
Proc. Acad. Nat. Sci., 1864, p. 286.
Unio Emesaensis, Lea, pl. 30, fig. 68 254
Proc. Acad. Nat. Sci., 1864, p. 286.
Unio marginis, Lea, pl. 31, fig. 69 255
Proc. Acad. Nat. Sci., 1865, p. 89.
Unio proprius, Lea, pl. 31, fig. 70 256
Proc. Acad. Nat. Sci., 1865, p. 89.
Unio protensus, Lea, pl. 31, fig. 71 256
Proc. Acad. Nat. Sci., 1865, p. 88.
Unio amabilis, Lea, pl. 31, fig. 72 257
Proc. Acad. Nat. Sci., 1865, p. 89.
Unio Oromwellii, Lea, pl. 31, fig. 73 258
Proc. Acad. Nat. Sci., 1865, p. 89.
Unio Lyonii, Lea, pl. 32, fig. 74 259
Proc. Acad. Nat. Sci., 1865, p. 89.
Unio doliaris, Lea, pl. 32, fig. 75 260
Proc. Acad. Nat. Sci., 1865, p. 88.
Unio punctatus, Lea, pl. 32, fig. 76 261
Proc. Acad. Nat. Sci., 1865, p. 89.
Unio parcus, Lea, pl. 33, fig. 77 262
Proc. Acad. Nat. Sci., 1866, p. 34.
Unio apprimus, Lea, pl. 33, fig. 78 263
Proc. Acad. Nat. Sci., 1866, p. 34.
Unio locellus, Lea 264
Proc. Acad. Nat. Sci., 1866, p. 34.

1868. LEA, ISAAC—Continued.

Unio peculiaris, Lea, pl. 34, fig. 80 265
Proc. Acad. Nat. Sci., 1866, p. 33.
Unio rugosoculeatus, Lea, pl. 34, fig. 81 266
Proc. Acad. Nat. Sci., 1866, p. 33.
Unio firmus, Lea, pl. 34, fig. 82 267
Proc. Acad. Nat. Sci., 1866, p. 33.
Unio ampullaceus, Lea, pl. 35, fig. 83 269
Proc. Acad. Nat. Sci., 1866, p. 34.
Unio acutirostris, Lea, pl. 35, fig. 84 270
Proc. Acad. Nat. Sci., 1866, p. 34.
Unio Paraguayensis, Lea, pl. 35, fig. 85 271
Proc. Acad. Nat. Sci., 1866, p. 34.
Monocondylæa lentiformis, Lea, pl. 36, fig. 86 272
Proc. Acad. Nat. Sci., 1866, p. 34.
Monocondylæa Puzii, Lea, pl. 36, fig. 88 273
Proc. Acad. Nat. Sci., 1866, p. 34.
Anodonta Puzii, Lea, pl. 36, fig. 87 274
Proc. Acad. Nat. Sci., 1866, p. 35.
Mycetopus pygmæus, Lea 275
Unio Jewettii, Lea, pl. 37, fig. 89 276
Proc. Acad. Nat. Sci., 1867, p. 81.
Unio Bisselianus, Lea, pl. 37, fig. 90 277
Proc. Acad. Nat. Sci., 1867, p. 81.
Unio Olinchensis, Lea, pl. 37, fig. 91 278
Proc. Acad. Nat. Sci., 1867, p. 81.
Unio evitatus, Lea, pl. 38, fig. 92 279
Proc. Acad. Nat. Sci., 1866, p. 133.
Unio Siamensis, Lea, pl. 38, fig. 93 279
Proc. Acad. Nat. Sci., 1866, p. 133.
Unio asperulus, Lea, pl. 38, fig. 94 280
Proc. Acad. Nat. Sci., 1866, p. 133.
Unio pilatus, Lea, pl. 38, fig. 95 281
Proc. Acad. Nat. Sci., 1866, p. 133.
Unio rufofuscus, Lea, pl. 39, fig. 96 282
Proc. Acad. Nat. Sci., 1865, p. 76.
Unio Wrightii, Lea, pl. 39, fig. 97 283
Proc. Acad. Nat. Sci., 1865, p. 75.
Unio tortuosus, Lea, pl. 39, fig. 98 286
Proc. Acad. Nat. Sci., 1865, p. 76.
Anodonta Youkanensis, Lea, pl. 40, fig. 99 287
Proc. Acad. Nat. Sci., 1867, p. 81, spelled *Youconensis*.
Anodonta Granadensis, Lea, pl. 41, fig. 100 288
Proc. Acad. Nat. Sci., 1868, p. 96.
Anodonta Jewettii, Lea, pl. 41, fig. 101 289
Proc. Acad. Nat. Sci., 1868, p. 95, spelled Jewettiana.
Anodonta lenticularis, Lea, pl. 41, fig. 102 290
Proc. Acad. Nat. Sci., 1868, p. 95.
Anodonta Bridgesii, Lea, pl. 42, fig. 104 291
Proc. Acad. Nat. Sci., 1868, p. 95.
Anodonta inæquivalva, Lea, pl. 43, fig. 108 292
Proc. Acad. Nat. Sci., 1868, p. 95.
Unio Granadensis, Lea, pl. 42, fig. 103 293
Proc. Acad. Nat. Sci., 1868, p. 95.
Unio encarpus, Lea, pl. 42, fig. 105 294
Proc. Acad. Nat. Sci., 1868, p. 95.
Unio Gabbianus, Lea, pl. 43, fig. 106 295
Proc. Acad. Nat. Sci., 1868, p. 95.
Unio Nicaraguensis, Lea, pl. 43, fig. 107 296
Proc. Acad. Nat. Sci., 1868, p. 95.
Unio Beaverensis, Lea, pl. 44, fig. 109 297
Proc. Acad. Nat. Sci., 1868, p. 161.
Unio nubilus, Lea, pl. 44, fig. 110 298
Proc. Acad. Nat. Sci., 1868, p. 161.
Unio datus, Lea, pl. 44, fig. 111 299
Proc. Acad. Nat. Sci., 1868, p. 161.

1868. LEA, ISAAC—Continued.

Unio dorsatus, Lea, pl. 45, fig. 112 300
Proc. Acad. Nat. Sci., 1868, p. 160.
Unio humerosus, Lea, pl. 45, fig. 113 301
Proc. Acad. Nat. Sci., 1868, p. 161.
Unio Pawensis, Lea, pl. 45, fig. 114 302
Proc. Acad. Nat. Sci., 1868, p. 161.

258.

1868 LEA, ISAAC. New Unionidæ, Melanidæ, etc., chiefly of the United States. <*Journ. Acad. Nat. Sci., Phila.*, vi, 1868, pp. 303–343. Plates 46–54, inclusive.

Continuation of No. 257. Extra copies printed for the author December, 1868. This with No. 257 forms No. 259.

The place in the *Proc. Acad. Nat. Sci.* where the description of each species first occurs is given after the name of the species.

Unio Murrayensis, Lea, pl. 46, fig. 115 303
Proc. Acad. Nat. Sci., 1868, p. 143.
Unio Uharéensis, Lea, pl. 46, fig. 116 304
Proc. Acad. Nat. Sci., 1868, p. 145.
Unio genuinus, Lea, pl. 46, fig. 117 305
Proc. Acad. Nat. Sci., 1868, p. 161.
Unio fassinans, Lea, pl. 47, fig. 118 305
Proc. Acad. Nat. Sci., 1868, p. 143.
Unio sparus, Lea, pl. 47, fig. 119 306
Proc. Acad. Nat. Sci, 1868, p. 143.
Unio Copei, Lea, pl. 47, fig. 120 307
Proc. Acad. Nat. Sci., 1868, p. 144.
Unio cylindrellus, Lea, pl. 48, fig. 121 308
Proc. Acad. Nat. Sci., 1868, p. 144.
Unio Brazosensis, Lea, pl. 48, fig. 122 309
Proc. Acad. Nat. Sci., 1868, p. 144.
Unio corvinus, Lea, pl. 48, fig. 123 310
Proc. Acad. Nat. Sci., 1868, p. 144.
Unio difficilis, Lea, pl. 49, fig. 124 311
Proc. Acad. Nat. Sci., 1868, p. 144.
Unio Lincecumii, Lea, pl. 49, fig. 125 312
Proc. Acad. Nat. Sci., 1868, p. 144.
Unio Topekaensis, Lea, pl. 49, fig. 126 313
Proc. Acad. Nat. Sci., 1868, p. 144.
Unio corvunculus, Lea, pl. 50, fig. 127 314
Proc. Acad. Nat. Sci., 1868, p. 144.
Unio vallatus, Lea, pl. 50, fig. 128 315
Proc. Acad. Nat. Sci., 1868, p. 145.
Unio planior, Lea, pl. 50, fig. 129 316
Proc. Acad. Nat. Sci., 1868, p. 145.
Unio refulgens, Lea, pl. 51, fig. 130 317
Proc. Acad. Nat. Sci., 1868, p. 145.
Unio Strebelii, Lea, pl. 51, fig. 131 318
Proc. Acad. Nat. Sci., 1868, p. 133.
Unio sphæricus, Lea, pl. 51, fig. 132 319
Proc. Acad. Nat. Sci., 1868, p. 145.
Unio Veracruzensis, Lea, pl. 52, fig. 133 320
Proc. Acad. Nat. Sci., 1868, p. 150.
Unio Ortonii, Lea, pl. 52, fig. 134 321
Proc. Acad. Nat. Sci., 1868, p. 161.
Anodonta Strebelii, Lea, pl. 52, fig. 135 322
Proc. Acad. Nat. Sci., 1868, p. 150.
Unio prunoides, Lea, pl. 53, fig. 136 323
Proc. Acad. Nat. Sci., 1868, p. 150.
Anodonta Napoensis, Lea, pl. 53, fig. 137 324
Proc. Acad. Nat Sci., 1868, p. 162.
Unio Chinensis, Lea, pl. 53, fig. 138 325
Proc. Acad. Nat. Sci., 1868, p. 150.

Here follow descriptions of the soft parts of the following species:

1868. LEA, ISAAC—Continued.

Unio pliciferous, Lea 326
Unio umbrosus, Lea 326
Unio granulatus, Lea 327
Unio consanguineus, Lea 327
Unio Lewisii, Lea 327
Margaritana Holstonia, Lea 327
Goniobasis Wheatleyi, Lea, pl. 54, fig. 1 328
Proc. Acad. Nat. Sci., 1868, p. 151.
Goniobasis similis, Lea, pl. 54, fig. 2 328
Proc. Acad. Nat. Sci., 1868, p. 151.
Goniobasis sulcata, Lea, pl. 54, fig. 3 329
Proc. Acad. Nat. Sci., 1868, p. 151.
Goniobasis arata, Lea, pl. 54, fig. 4 329
Proc. Acad. Nat. Sci., 1868, p. 151.
Goniobasis Gesnerii, Lea, pl. 54, fig. 5 330
Proc. Acad. Nat. Sci., 1868, p. 151.
Goniobasis Whitfieldensis, Lea, pl. 54, fig. 6 330
Proc. Acad. Nat. Sci., 1868, p. 151. (Changed from *tenebrosa*, which name is preoccupied.)
Goniobasis bifasciata, Lea, pl. 54, fig. 7 331
Proc. Acad. Nat. Sci., 1868, p. 151.
Goniobasis clathrata, Lea, pl. 54, fig. 8 331
Proc. Acad. Nat. Sci., 1868, p. 151.
Goniobasis Gouldiana, Lea, pl. 54, fig. 9 332
Proc. Acad. Nat. Sci., 1868, p. 151, under name of *G. pulchella*.
Goniobasis luteocella, Lea, pl. 54, fig. 10 332
Proc. Acad. Nat. Sci., 1868, p. 151.
Goniobasis Connesaugaensis, Lea, pl. 54, fig. 11 333
Proc. Acad. Nat. Sci., 1868, p. 152.
Goniobasis contigua, pl. 54, fig. 12 334
Proc. Acad. Nat. Sci., 1868, p. 152.
Goniobasis Murrayensis, pl. 54, fig. 13 334
Proc. Acad. Nat. Sci., 1868, p. 152.
Goniobasis granatoides, Lea, pl. 54, fig. 14 335
Proc. Acad. Nat. Sci., 1868, p. 152.
Goniobasis clavula, Lea, pl. 54, fig. 15 335
Proc. Acad. Nat. Sci., 1868, p. 152.
Goniobasis cochliaris, Lea, pl. 54, fig. 16 336
Proc. Acad. Nat. Sci., 1868, p. 152.
Goniobasis venusta, Lea, pl. 54, fig. 17 336
Proc. Acad. Nat. Sci., 1868, p. 152.
Goniobasis ornata, Lea, pl. 54, fig. 18 337
Proc. Acad. Nat. Sci., 1868, p. 152.
Trypanostoma nuciforme, Lea, pl. 54, fig. 19 337
Proc. Acad. Nat. Sci., 1868, p. 152.
Trypanostoma castaneum, Lea, pl. 54, fig. 20 338
Proc. Acad. Nat. Sci., 1868, p. 152.
Trypanostoma Wheatleyi, Lea, pl. 54, fig. 21 338
Proc. Acad. Nat. Sci., 1868, p. 153.
Trypanostoma terebrale, Lea, pl. 54, fig. 22 339
Proc. Acad. Nat. Sci., 1868, p. 153.
Lithasia purpurea, Lea, pl. 54, fig. 23 340
Proc. Acad. Nat. Sci., 1868, p. 153.
Lithasia curta, Lea, pl. 54, fig. 24 340
Proc. Acad. Nat. Sci., 1868, p. 153.
Lithasia Wheatleyi, Lea, pl. 54, fig. 25 341
Proc. Acad. Nat. Sci., 1866, p. 133.
Lithasia cylindrica, Lea, pl. 54, fig. 26 341
Proc. Acad. Nat. Sci., 1866, p. 133.
Schizostoma Wheatleyi, Lea, pl. 54, fig. 27 342
Proc. Acad. Nat. Sci., 1868, p. 153.
Aneulosa Downiei, Lea, pl. 54, fig. 28 342
Proc. Acad. Nat. Sci., 1868, p. 153.
Paludina Spillmanii, Lea, pl. 54, fig. 29 343
Proc. Acad. Nat. Sci., 1867, p. 81.

259.

1869. LEA, ISAAC. Observations | on the | Genus Unio; | together with | Descriptions of New Species in the Family Unionidæ, | and Descriptions of New Species of the | Melanidæ and Paludinæ. | Read before the Academy of Natural Sciences of Philadelphia, and Published | in their Journal. | by | Isaac Lea, LL. D., | Vice-President of the American Philosophical Society, Etc., Etc. | With Twenty-Six Plates. | Vol. XII. | — | Philadelphia: | Printed for the Author. 4°, pp. 105, with plates, 29 to 54 inclusive.

This is a reprint of numbers 257 and 258.

260.

1869. LEA, ISAAC. Index | to Vol. XII. | and Supplementary Index to Vols. I. to XI. of | Observations | on the | Genus Unio, | together with | Description of New Species of the Family Unionidæ, | and | Description of New Species of the Melanidæ, | Paludinæ, Helicidæ, Etc. | Read before the American Philosophical Society and the Academy of Natural | Sciences of Philadelphia, from 1827 to 1868. | by | Isaac Lea, LL. D., Etc. | — | Vol. II. | — | Philadelphia: | Printed for the Author | by T. K. Collins, 705 Jayne Street. | 1869. 4°, pp. 23.

"The index which I published, in 1867, of the eleven volumes of my Observations on the Genus *Unio*, etc., has proved so useful for reference to the Genera and Species described by me, I am induced to continue it for Vol. XII., and to issue with it an index of the *subject-matter* of the whole twelve volumes. I have also included tables of Errata and Corrigenda, that the whole may be made as complete and useful to the student of this interesting branch of zoology as possible."—Contents, p. 3.

ORDER OF ARRANGEMENT.

Section I. embraces new species of North American *Unionidæ*, original descriptive matter, and miscellaneous references to the same species in Vol. XII., in continuation of Section I., Index to Vols. I. to XI.

Subsections—Unio, Margaritana, Anodonta.

Section II. embraces new species of *Unionidæ* of Mexico and Central America, original descriptive matter, and miscellaneous references to the same species in Vol. XII., in continuation of Section II., Index to Vols. I. to XI.

Subsections—Unio, Anodonta.

Section III. embraces new species of Exotic *Unionidæ*, original descriptive matter, and references to the same species in Vol. XII., in continuation of Section III., Index to Vols. I. to XI.

Subsections—Unio, Anodonta, Monocondylœa, Mycetopus.

Section IV. embraces Miscellaneous *Unionidæ*, etc. (genera and species), to which incidental references have been made in classifying and comparing species under description, in Vol. XII., in continuation of Section IV., Index to Vols. I. to XI.

Subsections—Anodonta, *Arca*, Castalia, Dipsas, Iridina, Monocondylœa, Mycetopus, Prisodon, Spathæ, Triquetra.

Section V. embraces Operculated Univalve Aquatic *Mollusca* in Vol. XII., in continuation of Section V. Index to Vols. I. to XI.

Part A. embraces new species only, and miscellaneous references to the same.

Part B. embraces miscellaneous species, subjects of incidental remarks in classifying and comparing species under description.

Subsections—Anculosa, Goniobasis, Lithasia, Paludina, Schizostoma, Trypanostoma.

Section VI. embraces *subject-matter* (not necessarily descriptive or comparative of species) in the series of volumes from I. to XII. alphabetically arranged. Nearly all that refers to Vol. I. to XI. is supplementary, and will not be found in the previous index.

Section VII. embraces Errata and Corrigenda.

Part A. is supplementary to the table of "Errata and Corrigenda" of Vols. I. to XI. in the index to those volumes.

Part B. embraces Errata and Corrigenda of Vol. XII.

Part C. embraces Errata and Corrigenda of Index to Vols. I. to XI.

261.

1869. LEA, ISAAC. Notes on Microscopic Crystals included in some Minerals. <*Proc. Acad. Nat. Sci., Phila.*, xxi, p. 4. February, 1869. Separate with No. 262. 8°. pp. 7.

Read before the Academy of Natural Sciences February 16, 1869, and ordered to be published Feb. 23, 1869. This forms part of No. 272.

262.

1869. LEA, ISAAC. Further Notes on Microscopic Crystals in some of the Gems, &c. <*Proc. Acad. Nat. Sci., Phila.*, xxi, pp. 119-121. May, 1869. Separate with No. 261. 8°. pp. 7.

Read before the Academy of Natural Sciences May 11, 1869, and ordered to be published May 25, 1869. This forms part of No. 272.

263.

1869. LEA, ISAAC. Descriptions of six new species of Fresh Water Shells. <*Proc. Acad. Nat. Sci., Phila.*, xxi, pp. 124-125. June, 1869.

Read before the Academy of Natural Sciences June 15, 1869. This forms part of No. 272.

Latin descriptions of the species, with mention of Habitat.

Unio Macnielii, Lea, n. s 124
Rio Gigillillo, Coronera, Nicaragua, Cent. Amer., M. J. A. McNiel.
Journ. Acad. Nat. Sci., viii, 1874, p. 25.

Goniobasis baculoides, Lea, n. s 125
Coosa River, Alab., Dr. Schowalter.
Journ. Acad. Nat. Sci., viii, 1874, p. 62.

Goniobasis Lawrencii, Lea, n. s 125
Washita River, near Hot Springs, Arkansas, Dr. Lawrence.
Journ. Acad. Nat. Sci., viii, 1874, p. 62, as *G. Lawrencei*.

Schizostoma Lewisii, Lea, n. s 125
Coosa River, Alabama, Dr. Schowalter.
Journ. Acad. Nat. Sci., viii, 1874, p. 61.

Physa Carltonii, Lea, n. s 125
Mount Diablo, California, W. G. W. Harford.
Journ. Acad. Nat. Sci., viii, 1874, p. 63.

Physa Wolfana, Lea, n. s 125
Hot Springs, Colorado Ter., Prof. J. W. Powell.
Journ. Acad. Nat. Sci., viii, 1874, p. 63.

264.

1869. LEA, ISAAC. Are Unios sensitive to light. <*Amer. Journ. Sci. Arts*, xlvii, 1869, pp. 430-431.

265.

1870. LEA, ISAAC. A | Synopsis | of the | Family Unionidæ. | by | Isaac Lea, LL. D., | Vice President of the American Philosophical Society; | Late President of the Academy of Natural Sciences of Philadelphia; | Member of the Zoological Society of London, Etc., Etc. | Fourth Edition, very greatly enlarged and improved. | Philadelphia: | Henry C. Lea. | 1870. 4to. pp. xxx, 25-184. Dedicated to Isaac Hays, M. D.

Preface to Fourth Edition.

"It is now eighteen years since the last edition of this 'Synopsis' was published. The advancement of the knowledge of Natural History has been accelerated during that period by the labors of many men of science, the younger of whom have embraced the study with great earnestness and energy. The effect of this progress has been felt very sensibly in that interesting group of *Mollusca* which embraces the Family *Unionidæ*. Consequently the Additions of species and synonyms have been largely increased, resulting, in fact, in more than doubling the lists of the last edition. The labor required for this portion of the work has been very great.

The same principles of arrangement of the tabular system which were used in the previous editions have been retained in this. After the experience of thirty-four years since the first

[illegible] Lea, Isaac—Continued.

[illegible]

The present edition is greatly improved and enlarged by additions to the geographical [illegible] tables, and by the habitat of each of the species, and the Index relating to [illegible] tables of species and synonymy has had the most careful and carefully made to the work [illegible] they were originally commenced. These five very important additions to the previous [illegible] will facilitate the use of reference to all the works on the subject which the "Synopsis" [illegible].

These tables were originally made for my own use. Subsequently I was induced to [illegible] them, and they have now expanded to a large volume. With all the care which has been bestowed on them, I do not present them as a perfect and complete work, and I trust [illegible] my conclusions and errors may be pointed out to me.

The Bibliographical List of the Unionidæ at the end of the volume will complete the [illegible] and conclude by the commencement, compiling, and [illegible] about eleven hundred [illegible] and yet I am positively aware that many works will be found to exist which have escaped [illegible] under my notice."

Corrigenda et Addenda ..... [illegible]
Synopsis of the Family Unionidæ ..... [illegible]
Division of the Family Unionidæ ..... [illegible]
Genus Margaron ..... [illegible]
Subgenus Triquetra ..... [illegible]
Subgenus Prisodon ..... [illegible]
Subgenus Unio ..... [illegible]
Subgenus Margaritana ..... [illegible]
Subgenus Plagiodon ..... [illegible]
Subgenus Monocondylæa ..... [illegible]
Subgenus Dipsas ..... [illegible]
Subgenus Anodonta ..... [illegible]
Subgenus Columba ..... [illegible]
Subgenus Bysanodonta ..... [illegible]
Genus Platiris ..... [illegible]
Subgenus Iridina ..... [illegible]
Subgenus Spatha ..... [illegible]
Subgenus Mycetopus ..... [illegible]
Geographical Distribution of the Species of the Family Unionidæ ..... [illegible]
Genus Margaron ..... [illegible]
Subgenus Triquetra ..... [illegible]
Subgenus Prisodon ..... [illegible]
Subgenus Unio ..... [illegible]
Subgenus Margaritana ..... [illegible]
Subgenus Plagiodon ..... [illegible]
Subgenus Monocondylæa ..... [illegible]
Subgenus Dipsas ..... [illegible]
Subgenus Anodonta ..... [illegible]
Subgenus Columba ..... [illegible]
Subgenus Bysanodonta ..... [illegible]
Genus Platiris ..... [illegible]
Subgenus Iridina ..... [illegible]
Subgenus Spatha ..... [illegible]
Subgenus Mycetopus ..... [illegible]
Index of Species ..... [illegible]
Alphabetical List of Works referring to the Unionidæ in this volume ..... [illegible]
Chronological Bibliography of the Unionidæ ..... [illegible]
Appendix ..... [illegible]

266.

[illegible] 1871. 5. *Description of three new species of Exotic Unionidæ.* <*Proc. Acad. Nat. Sci., Phila.*, xxiii, p. 188. October, 1871.

[illegible] the Academy of Natural Sciences June 13, 1871, and ordered to be published [illegible] Presented to the meeting of the Academy October 24, 1871. (See *Proc. Acad.*, xxiii, p. 6.) This forms part of No. 272.

1. LEA, ISAAC—Continued.

Full notes on the species to be found in Journal Acad. Nat. Sci., viii, 1874, and Obs., xiii.

Unio Jeffreysianus, Lea, n. s 188
Australia, C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 22.

Unio Stevensii, Lea, n. s 188
Yuruari River, Tributary to Essequebo River, Guiana, R. P. Stevens.
Journ. Acad. Nat. Sci., viii, 1874, p. 22.

Anodonta exilior, Lea, n. s 188
Mexico, C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 24.

267.

571. LEA, ISAAC. Descriptions of Twenty New Species of Uniones of the United States. <*Proc. Acad. Nat. Sci., Phila.*, xxiii, pp. 189–193. October, 1871.

Read before the Academy of Natural Sciences June 13, 1871, and ordered to be published June 27, 1871. Presented to the meeting of the Academy October 24, 1871. (See *Proc. Acad. Nat. Sci.*, xxiii, p. 6.) This forms part of No. 272.

Latin descriptions of the species, with mention of habitat. Full notes on species in *Journ. Acad. Nat. Sci., Phila.*, vol. viii, 1874, and Obs., etc.

Unio Lawii, Lea, n. s. 189
Tennessee River, Tuscumbia, Alab., B. Pybas; Tenn. River, Dr. Edgar; Holston River, Miss., A. E. Law and Prof. Cope.
Journ. Acad. Nat. Sci., viii, 1874, p. 8.

Unio appressus, Lea, n. s 189
Tuscumbia, Alab., B. Pybas and J. G. Anthony; Holston River, Miss Law and C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 12.

Unio validus, Lea, n. s 189
Duck River, Tenn., Dr. Powell; Clinch River, Pres. Estabrook; Holston River, Dr. Edgar and Miss Law.
Journ. Acad. Nat. Sci., viii, p. 6.

Unio litus, Lea, n. s 189
Cahaba River, Shelby Co., Alab., E. R. Schowalter, M. D.
Journ. Acad. Nat. Sci., viii, 1874, p. 17.

Unio simulans, Lea, n. s 190
Cahaba River, Shelby Co., Alab., E. R. Schowalter, M. D.
Journ. Acad. Nat. Sci., viii, 1874, p. 18.

Unio Cahabensis, Lea, n. s 190
Cahaba River, Shelby Co., Alab., E. R. Schowalter, M. D.
Journ. Acad. Nat. Sci., viii, 1874, p. 17.

Unio acuens, Lea, n. s 190
Holston River, near Concord, E. Tenn., Miss Law.
Journ. Acad. Nat. Sci., viii, 1874, p. 27.

Unio crudus, Lea, n. s 190
French Broad River, E. Tenn., Pres. Lindsley; Swamp Creek, Murray Co., Geo., Maj. Downie; Holston River, Miss Law and C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 14.

Unio Tuscumbiensis, Lea, n. s 190
Tuscumbia, Alab., L. B. Thornton, Esq.; Holston River, E. Tenn., Dr. Edgar.
Journ. Acad. Nat. Sci., viii, 1874, p. 11.

Unio dispansus, Lea, n. s 191
East Tennessee, Dr. Edgar.
Journ. Acad. Nat. Sci., viii, 1874, p. 19.

Unio Pealei, Lea, n. s 191
Topeka, Kansas, Chas. W. Peale.
Journ. Acad. Nat. Sci., viii, 1874, p. 26.

Unio globatus, Lea, n. s 191
Holston River, Dr. Edgar; Etowah River, Georgia, Thos. Bland.
Journ. Acad. Nat. Sci., viii, 1874, p. 5.

Unio subglobatus, Lea, n. s 191
Florence, Alab., B. Pybas; Nashville, Tenn., Pres. J. B. Lindsley.
Journ. Acad. Nat. Sci., viii, 1874, p. 7.

1871. LEA, ISAAC—Continued.

Unio recurvatus, Lea, n. s 192
Tenn. River, J. G. Anthony; Holston River, E. Tenn., Miss Law.
Journ. Acad. Nat. Sci., viii, 1874, p. 10.

Unio obuncus, Lea, n. s 192
Tuscumbia, Alab.; Holston River, E. Tenn., Miss Law.
Journ. Acad. Nat. Sci., viii, 1874, p. 9.

Unio radiosus, Lea, n. s 192
Holston River, E. Tenn., C. M. Wheatley & Miss Law.
Journ. Acad. Nat. Sci., viii, 1874, p. 13.

Unio circumactus, Lea, n. s 192
Florence, Alab., Rev. G. White; Holston River, Miss Law.
Journ. Acad. Nat. Sci., viii, 1874, p. 15.

Unio radiolus, Lea, n. s 192
Ogeechee River, Liberty Co., Geo., Major John Le Conte.
Journ. Acad. Nat. Sci., viii, 1874, p. 21.

Unio pattinoides, Lea, n. s 192
Clinch River, Pres. Estabrook; Holston River, Dr. Edgar and Miss Law.
Journ. Acad. Nat. Sci., viii, 1874, p. 16.

Unio Santeënsis, Lea, n. s 192
Santee Canal, S. C., Dr. Foreman; Oconee River, Georgia, Major J. Le Conte.
Journ. Acad. Nat. Sci., viii, 1874, p. 20.

268.

1872. LEA, ISAAC. Descriptions of Twenty-nine Species of Unionidæ from the United States. <*Proc. Acad. Nat. Sci., Phila.*, xxiv, pp. 155–161. June, 1872.

Read before the Academy of Natural Sciences June 4, 1872, and ordered to be published June 25, 1872. Pages 121–168 presented to the meeting of the Academy September 3, 1872. (See *Proc. Acad. Nat. Sci., Phila.*, xxiv, p. ii.) This forms part of No. 272.

This consists of the Latin descriptions of the species, with mention of the habitat of each. The place where the full notes are to be found will be indicated after each species.

Unio Tellicoensis, Lea, n. s 155
Tellico River, Monroe Co., E. Tenn., Miss A. E. Law.
Journ. Acad. Nat. Sci., viii, 1874, p. 31.

Unio Conasaugaensis, Lea, n. s 155
Conasauga Creek, Monroe Co., E. Tenn., Miss A. E. Law.
Journ. Acad. Nat. Sci., viii, 1874, p. 33.

Unio lenticularis, Lea, n. s 155
Tellico River, Monroe Co., E. Tenn., Miss A. E. Law.
Journ. Acad. Nat. Sci., viii, 1874, p. 30.

Unio Andersonensis, Lea, n. s 155
Holston River and Clinch River, Anderson Co., E. Tenn., Miss A. E. Law.
Journ. Acad. Nat. Sci., viii, 1874, p. 36.

Unio flavidus, Lea, n. s 156
Clinch River, Anderson Co., E. Tenn., Miss A. E. Law.
Journ. Acad. Nat. Sci., viii, 1874, p. 28.

Unio pauciplicatus, Lea, n. s 156
Austin, Texas, Prof. C. G. Forshey.
Journ. Acad. Nat. Sci., viii, 1874, p. 29.

Unio vesicularis, Lea, n. s 156
Lake Ocheechobee, Florida, Dr. Budd and C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 37.

Unio conspicuus, Lea, n. s 156
Yadkin River, near Salisbury, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 34.

Unio Yadkinensis, Lea, n. s 156
Yadkin River, near Salisbury, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 32.

Unio brevis, Lea, n. s 157
Conasauga Creek, Monroe Co., E. Tenn., Miss A. E. Law.
Journ. Acad. Nat. Sci., viii, 1874, p. 35.

Unio amplus, Lea, n. s 157
Irwin's Creek, Mecklenberg Co., N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 30.

72. LEA, ISAAC—Continued.

Unio ligatus, Lea, n. s. 157
Irwin's Creek, Mecklenberg Co., and Long Creek, Gaston Co., N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 49.

Unio attenuatus, Lea, n. s. 157
Savannah River, Georgia, Dr. Barratt; and Beaver Creek, Houston Co., Georgia, Dr. J. Lewis.
Journ. Acad. Nat. Sci., viii, 1874, p. 41.

Unio difortus, Lea, n. s. 158
Georgia, Major J. Le Conte.
Journ. Acad. Nat. Sci., viii, 1874, p. 42.

Unio strumosus, Lea, n. s. 158
Yadkin River, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 57.

Unio subparallelus, Lea, n. s. 158
Irwin's Creek and Fox River, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 46.

Unio oblongus, Lea, n. s. 158
Irwin's Creek, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 52.

Unio Irwinensis, Lea, n. s. 159
Irwin's Creek, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 44.

Unio curvatus, Lea, n. s. 159
Pfeiffer's Pond, Mecklenberg Co., N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 38.

Unio insolidus, Lea, n. s. 159
Abbeville Dist., N. C., Dr. Barratt; and Irwin's Creek, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 40.

Unio cuspidatus, Lea, n. s. 159
Buckhead Creek, Burke Co., Georgia, Bishop Elliott.
Journ. Acad. Nat. Sci., viii, 1874, p. 43.

Unio exacutus, Lea, n. s. 159
Savannah River at Governor Hamilton's, Georgia, Dr. Barratt.
Journ. Acad. Nat. Sci., viii, 1874, p. 45.

Unio subequamosus, Lea, n. s. 160
Yadkin River, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 47.

Unio rostellum, Lea, n. s. 160
Macon, Georgia, I. C. Plant.
Journ. Acad. Nat. Sci., viii, 1874, p. 44.

Unio infuscus, Lea, n. s. 160
Fox River and Irwin's Creek, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 51.

Unio ratus, Lea, n. s. 160
Neuse River, N. C., Prof. E. Emmons.
Journ. Acad. Nat. Sci., viii, 1874, p. 52.

Unio dissimilis, Lea, n. s. 161
Long Creek, Gaston Co., and Pfeiffer's Pond, Mecklenberg Co., N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 53.

Unio bellulus, Lea, n. s. 161
Holston River, Dr. Edgar; Tenn. River, Rev. G. White; Mussel Shoals, Tenn. River, Alabama, C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 50.

Unio basalis, Lea, n. s. 161
Carter's Creek, near Columbus, Georgia, G. Hallenbeck.
Journ. Acad. Nat. Sci., viii, 1874, p. 48.

269.

1872. LEA, ISAAC. Rectification | of | T. A. Conrad's | "Synopsis of the Family of Naiades of | North America," | published in the | "Proceedings of the Academy of Natural Sciences | of Philadelphia, | February, 1853." | New edition. |

1872. LEA, ISAAC—Continued.

By | Isaac Lea, LL. D. | Philadelphia: | Collins, Printer, 705 Jayne Street. 1872. | 8°. pp. 45. Pamphlet.

(See numbers 101 and 237.)

NOTICE.

The previous edition of my "Rectification" of Mr. Conrad's "Synopsis of the Family Naïades of North America" being exhausted, I am induced to reprint it complete as orig ally read before the Academy of Natural Sciences, February 7, 1854. The parts now inser in brackets [—] are those which, on consultation with the committee appointed on the pap I consented should be left out. These were chiefly the arguments regarding *priority* of p lication, and the opinions of the principal naturalists regarding the claims of M. Rafinesq All the matter in brackets is precisely as originally read by me to the Academy.

In addition there are two foot-notes on pages 7 and 10, written and dated at the pres time. They are intended to be explanatory.

In the "Bibliography of North American Conchology," by W. G. Binney, "Smithsonian M cellaneous Collections," Part I, 1863, the "Synopsis of the Family of North America," by E. Conrad, is tabulated in eight pages, double column. It would naturally be supposed, in p tending to give a complete bibliography, that my "Rectification" of this very erroneo "Synopsis" would have been inserted by Mr. Binney as a part of the Bibliography of No American Conchology, and have followed in its proper place, so that the student of Am can Conchology could at least have known the facts. Such, however, was not the case. simply gave the title, and says, "as regards errors of dates the following are specified" and then cites *four* specific names, with dates, instead of nearly *one hundred*. Mr. Binn therefore, evidently used the "Bibliography" for personal purposes, depriving the stud of the power of ascertaining the facts, unless he referred to my original publication in Proceedings of the Academy of Natural Sciences. It was very natural that I should ap to Prof. Henry, the Secretary of the Smithsonian Institution, for a correction of this om sion, which he very kindly promised should be made in Part II, to come out the next ye 1864. In an Appendix of this Part, Mr. Binney published a mere useless catalogue of nam *without a date and without a single correction* of Mr. Conrad's erroneous dates of my spec for which the "Rectification" was expressly written In the caption of this Appendix, Binney says that "Mr. Lea having requested that the whole of his 'Rectification' sho be published, I add a list of the species to which he refers in that paper." This is not fact; I only requested Prof. Henry to have inserted *the tables* of the corrected date species, so that all naturalists interested in the subject might be able to judge for themselv The tables, as inserted at pages 273 and 274 by Mr. Binney, are utterly useless for any p pose, as they do not correct a single error of Mr. Conrad's dates of my species, the very ject of the publication of my "Rectification."

Subsequently, on my complaining to Prof. Henry of this second act of injustice by Binney, he requested another copy of the tables of my "Rectification" for the purpose inserting it in another Appendix, and he very kindly has published it in Vol. IX, p. 269, "Smithsonian Miscellaneous Collections," 1869, under his own name. Unfortunately, never can be of the same use to science as if it had been it its proper place in Part I, and the interim six years had elapsed.*

The unreliability and danger of taking a date of species, on assumptive grounds, a putting aside that of a paper regularly read before an accredited scientific society—plac a fictitious date in its place—are so fully exemplified in the case of Mr. Conrad's paper Tertiary Fossils, American Journal of Conchology, Vol. I, 1865, that I am induced to pr my correspondence with the editor in regard to it. In this paper, some of my species re before the Academy of Natural Sciences, August 27, 1833, and issued printed the last November following, with illustrations, and the imprint of 1833, Mr. Conrad has placed t date of April, 1834, and made them synonyms to those of his paper issued in 1833. This co respondence will fully exemplify the absurdity of taking dates from individual authorit and rejecting those of accredited scientific bodies.

---

*In the remarks of the editor of the "American Journal of Conchology," Vol. I, p. 270, he criticise the course taken by Mr. Binney, and says "a book of this nature should afford every possible informa tion to those who have occasion to consult it," and that I had proved the priority of certain of "hi [my] species by evidence which had never been questioned. Yet Mr. Binney has not deemed it ad visable even to mention the dates stated by Mr. Lea except in regard to four species only, and thus those who in future times depend, as they certainly will, on the Bibliography, for the synonymy of these species, will be misled into the perpetuation of a wrong."

270.

4. LEA, ISAAC. Description of Seven New Species of Unionidæ of the United States. <*Proc. Acad. Nat. Sci., Phila.*, xxv, pp. 422–423.

Read before the Academy of Natural Sciences Nov. 25, 1873. Ordered to be published Dec. 30, 1873. Pages 409–424 of the Proceedings, presented to the Society at the meeting of February 17, 1874. (See *Proc. Acad. Nat. Sci., Phila.*, xxv, 1873, pp. ii.) This forms part of No. 272.

Unio infulgens, Lea, n. s. 422
Stewart's Pond, Union Co., N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 60.

Unio subolivaceus, Lea, n. s 422
Catawba River, Fox and Yadkin Rivers, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., 1874, p. 57.

Unio cirratus, Lea, n. s. 422
Abbeville Dist., S. C., Dr. Barratt.
Journ. Acad. Nat. Sci., viii, 1874, p. 55.

Unio subcylindraceus, Lea, n. s 422
Rocky Creek, near Macon, Georgia, J. C. Plant; and Carter's Creek, Georgia, J. Postell.
Journ. Acad. Nat. Sci., viii, 1878, p. 58.

Unio hastatus, Lea, n. s. 423
New Market, Abbeville Dist., S. C., Dr. L. R. Gibbs and Dr. Barratt; and Rocky Creek, near Macon, Georgia, J. C. Plant.
Journ. Acad. Nat. Sci., viii, 1874, p. 56.

Unio corneus, Lea, n. s 423
Columbus, Georgia, G. Hallenbeck; Abbeville Dist., S. C., Dr. Barratt; Marietta, Georgia, J. C. Anthony.
Journ. Acad. Nat. Sci., viii, 1874, p. 59.

Unio strumosus, Lea 423
Yadkin River, N. C., C. M. Wheatley.
Journ. Acad. Nat. Sci., 1874, p. 57, first described in *Proc. Acad. Nat. Sci.*, 1872, p. 158.

271.

74. LEA, ISAAC. Description of Three New Species of Uniones of the United States. <*Proc. Acad. Nat. Sci., Phila.*, xxv, p. 424.

Read before the Academy of Natural Sciences December 23, 1873, and ordered to be printed Dec. 30, 1873. Pages 409–424 presented to the meeting of the Society Feb. 17, 1874. (See *Proc. Acad. Nat. Sci., Phila.*, xxv, 1873, p. ii.) This forms part of No. 272.

Unio Dooleyensis, Lea, n. s. 424
Dooley Co., Georgia, Rev. G. White; Abbeville, S. C., Dr. Barratt.
Journ. Acad. Nat. Sci., viii, 1874, p. 64.

Unio invenustus, Lea, n. s 424
Columbus, Georgia, G. Hallenbeck; Russel Co., Georgia, Dr. Neisler; Irwin's Creek, North Carolina, C. M. Wheatley.
Journ. Acad. Nat. Sci., viii, 1874, p. 66.

Unio Gesnerii, Lea, n. s 424
Uchee River, near Columbus, Georgia, Dr. J. Lewis.
Journ. Acad. Nat. Sci., viii, 1874, p. 65.

272.

1874 LEA, ISAAC. Notes on Microscopic Crystals included in | some Minerals. | Further Notes on Microscopic Crystals in | some of the Gems, Etc. (With a Plate.) | Descriptions of Six New Species of Fresh | Water Shells. | Descriptions of Three New Species of Exotic | Unionidæ. | Descriptions of Twenty New Species of Uni- | ones of the United States. | Descriptions of Twenty-Nine Species of Uni- | onidæ of the United States. | Descriptions of Seven New Species of Union- | idæ of the United States. | Descriptions of Three New Species of Uniones | of the United States. | by | Isaac Lea, LL. D., Etc. | Philadelphia: | Collins, Printer, 705 Jayne Street, | 1874. 8°. pp. 24. Pamphlet.

This consists of Nos. 261, 262, 263, 266, 267, 268, 270, & 271.

273.

1874. LEA, ISAAC. Description of fifty-two species of Unionidæ. <*Journ. Acad. Nat. Sci., Phila.*, viii. New series. Pp. 5–54. With plates I to XVIII.

Read before the Academy Natural Sciences, Phila., September 15, 1873. Ordered to be printed in the Journ. of the Acad. Sept. 15, 1873. Extra copies printed for the author March 30, 1874. (See *Table of Contents of Journ. Acad. Nat. Sci., Phila.*, viii, n. s. Part I.) This with No. 274 forms No. 275. Reprinted with plates in Observations on the Genus Unio, vol. xiii.

The descriptions of these species were published in various articles in the Proc. Acad. Nat. Sci., Phila., previous to the reading of this paper. The place where each species was first described is indicated after each species.

Unio globatus, Lea, pl. 1, fig. 1 5
Proc. Acad. Nat. Sci., Phila., 1871, p. 191.
Unio validus, Lea, pl. 1, fig. 2 6
Proc. Acad. Nat. Sci., Phila., 1871, p. 189.
Unio subglobatus, Lea, pl. 1, fig. 3 7
Proc. Acad. Nat. Sci., Phila., 1871, p. 191.
Unio Lawii, Lea, pl. 2, fig. 4 8
Proc. Acad. Nat. Sci., Phila., 1871, p. 189.
Unio obuncus, Lea, pl. 2, fig. 5 9
Proc. Acad. Nat. Sci., Phila., 1871, p. 192.
Unio recurvatus, Lea, pl. 2, fig. 6 10
Proc. Acad. Nat. Sci., Phila., 1871, p. 192.
Unio Tuscumbiensis, Lea, pl. 3, fig. 7 11
Proc. Acad. Nat. Sci., Phila., 1871, p. 190.
Unio appressus, Lea, pl. 3, fig. 8 12
Proc. Acad. Nat. Sci., Phila., 1871, p. 189.
Unio radiosus, Lea, pl. 3, fig. 9 13
Proc. Acad. Nat. Sci., Phila., 1871, p. 192.
Unio crudus, Lea, pl. 4, fig. 10 14
Proc. Acad. Nat. Sci., Phila., 1871, p. 190.
Unio circumactus, Lea, pl. 4, fig. 11 15
Proc. Acad. Nat. Sci., Phila., 1871, p. 192.
Unio pattinoides, Lea, pl. 4, fig. 12 16
Proc. Acad. Nat. Sci., Phila., 1871, p. 193.
Unio litus, Lea, pl. 5, fig. 13 17
Proc. Acad. Nat. Sci., Phila., 1871, p. 189.
Unio Cahabensis, Lea, pl. 5, fig. 14 17
Proc. Acad. Nat. Sci., Phila., 1871, p. 190.
Unio simulans, Lea, pl. 5, fig. 15 18
Proc. Acad. Nat. Sci., Phila., 1871, p. 190.
Unio dispansus, Lea, pl. 6, fig. 16 19
Proc. Acad. Nat. Sci., Phila., 1871, p. 191.
Unio Santéensis, Lea, pl. 6, fig. 17 20
Proc. Acad. Nat. Sci., Phila., 1871, p. 193.
Unio radiolus, Lea, pl. 6, fig. 18 21
Proc. Acad. Nat. Sci., Phila., 1871, p. 192.
Unio Stevensii, Lea, pl. 7, fig. 19 22
Proc. Acad. Nat. Sci., Phila., 1871, p. 188.
Unio Jeffreysianus, Lea, pl. 7, fig. 20 22
Proc. Acad. Nat. Sci., Phila., 1871, p. 188.
Anodonta exilior, Lea, pl. 7, fig. 21 24
Proc. Acad. Nat. Sci., Phila., 1871, p. 188.
Unio Macneilii, Lea, pl. 8, fig. 22 25
Proc. Acad. Nat. Sci., Phila., 1869, p. 124.
Unio Pealei, Lea, pl. 8, fig. 23 26
Proc. Acad. Nat. Sci., Phila., 1871, p. 191.
Unio acuens, Lea, pl. 8, fig. 24 27
Proc. Acad. Nat. Sci., Phila., 1871, p. 190.
Unio flavidus, Lea, pl. 9, fig. 25 28
Proc. Acad. Nat. Sci., Phila., 1872, p. 156.
Unio pauciplicatus, Lea, pl. 9, fig. 26 29
Proc. Acad. Nat. Sci., Phila., 1872, p. 156.
Unio lenticularis, Lea, pl. 9, fig. 27 30
Proc. Acad. Nat. Sci., Phila., 1872, p. 155.

1874. Lea, Isaac—Continued.

Unio Tellicoensis, Lea, pl. 10, fig. 28 31
Proc. Acad. Nat. Sci., Phila., 1872, p. 155.
Unio Yadkinensis, Lea, pl. 10, fig. 29 32
Proc. Acad. Nat. Sci., Phila., 1872, p. 156.
Unio Conasaugaensis, Lea, pl. 10, fig. 30 33
Proc. Acad. Nat. Sci., Phila., 1872, p. 155.
Unio conspicuus, Lea, pl. 11, fig. 31 34
Proc. Acad. Nat. Sci., Phila., 1872, p. 156.
Unio brevis, Lea, pl. 12, fig. 32 35
Proc. Acad. Nat. Sci., Phila., 1872, p. 157.
Unio Andersonensis, Lea, pl. 12, fig. 33 36
Proc. Acad. Nat. Sci., Phila., 1872, p. 155.
Unio vesicularis, Lea, pl. 12, fig. 34 37
Proc. Acad. Nat. Sci., Phila., 1872, p. 156.
Unio curvatus, Lea, pl. 13, fig. 35 38
Proc. Acad. Nat. Sci., Phila., 1872, p. 159.
Unio amplus, Lea, pl. 13, fig. 36 39
Proc. Acad. Nat. Sci., Phila., 1872, p. 157.
Unio insolidus, Lea, pl. 13, fig. 37 40
Proc. Acad. Nat. Sci., Phila., 1872, p. 159.
Unio attenuatus, Lea, pl. 14, fig. 38 41
Proc. Acad. Nat. Sci., Phila., 1872, p. 157.
Unio difertus, Lea, pl. 14, fig. 39 42
Proc. Acad. Nat. Sci., Phila., 1872, p. 158.
Unio cuspidatus, Lea, pl. 14, fig. 40 43
Proc. Acad. Nat. Sci., Phila., 1872, p. 159.
Unio rostellum, Lea, pl. 15, fig. 41 44
Proc. Acad. Nat. Sci., Phila., 1872, p. 160.
Unio Irwinensis, Lea, pl. 15, fig. 42 44
Proc. Acad. Nat. Sci., Phila., 1872, p. 159.
Unio exacutus, Lea, pl. 15, fig. 43 45
Proc. Acad. Nat. Sci., Phila., 1872, p. 159.
Unio subparallelus, Lea, pl. 16, fig. 44 46
Proc. Acad. Nat. Sci., Phila., 1872, p. 158.
Unio subsquamosus, Lea, pl. 16, fig. 45 47
Proc. Acad. Nat. Sci., Phila., 1872, p. 160.
Unio basalis, Lea, pl. 16, fig. 46 48
Proc. Acad. Nat. Sci., Phila., 1872, p. 161.
Unio ligatus, Lea, pl. 17, fig. 47 49
Proc. Acad. Nat. Sci., Phila., 1872, p. 157.
Unio bellulus, Lea, pl. 17, fig. 48 50
Proc. Acad. Nat. Sci., Phila., 1872, p. 161.
Unio infuscus, Lea, pl. 17, fig. 49 51
Proc. Acad. Nat. Sci., Phila., 1872, p. 160.
Unio oblongus, Lea, pl. 18, fig. 50 52
Proc. Acad. Nat. Sci., Phila., 1872, p. 158.
Unio ratus, Lea, pl. 18, fig. 51 52
Proc. Acad. Nat. Sci., Phila., 1872, p. 160.
Unio dissimilis, Lea, pl. 18, fig. 52 53
Proc. Acad. Nat. Sci., Phila., 1872, p. 161.

274.

1874. Lea, Isaac. Supplement to Isaac Lea's Paper on Unionidæ. <*Journ. Acad. Nat. Sci., Phila.*, viii, pp. 55–69, with plates 19 to 22, inclusive.

Read before the Academy of Natural Sciences, Phila., February 3, 1874. Extra copies printed for the author March 30, 1874. (See *Table of Contents of Journ. Acad. Nat. Sci., Phila.*, viii, n. s. Part I.) This with No. 273 forms No. 275.

This paper consists of three parts:

1. Descriptions of fifteen species of shells.
2. Soft Parts of Unionidæ.
3. Embryonic Forms of Unionidæ.

Unio cirratus, Lea, pl. 19, fig. 53 55
Proc. Acad. Nat. Sci., Phila., 1873, p. 422.
Unio hastatus, Lea, pl. 19, fig. 54 56
Proc. Acad. Nat. Sci., Phila., 1873, p. 423.

1874. LEA, I
Sci
R
pu
M
Th
ve
N

LEA, ISAAC—Continued.

Read before the American Philosophical Society and the Academy of Natural Sciences of Philadelphia, from 1827 to 1874. | by | Isaac Lea, LL. D. | — | Vol. III. | — | Philadelphia: | Printed for the Author. | Collins, Printer, 705 Jayne Street. | 1874. 4°. pp. 29.

"The two previous indices, published in 1867 and 1869, were chiefly intended for references to general species in the previous twelve volumes. The object of this Index is to embrace the subject-matter, *anatomical and structural* details, habits, etc., of the whole thirteen volumes, and in such an extended and analytical manner as to make every part of these volumes accessible to the student of these important and very interesting Families of the Mulluscs." Notice p. 3.

ORDER OF ARRANGEMENT.

SECTION I—Embraces new species of Unionidæ, Embryonic forms and soft parts, being *original descriptive* matter in Vol. xiii.

SECTION II—Embraces new species of Univalve mollusca, being *original descriptive matter* in Vol. xiii.

SECTION III—Embraces *miscellaneous references to known species* of Unionidæ, in Vol. xiii.

SECTION IV—Embraces miscellaneous references to known species of Univalves, in Vol. xiii.

SECTION V—Embraces references to *Anatomical* and *Structural details, habits, and other peculiarities* of Unionidæ, etc., etc., etc., in Vols. i to xiii, not embraced in former Indices.

277.

LEA, ISAAC. Further Notes on "Inclusions" in Gems, etc. <*Proc. Acad. Nat. Sci., Phila.*, xxviii, pp. 98–107, with a lithographic plate.

Read before the Academy of Natural Sciences, May 23, 1876. Pages 98–104 of the Proceedings were presented to the Academy July 11, 1876, pp. 105–107 August 8, 1876. For separate, see No. 278.

278.

LEA, ISAAC. Further Notes | on | "Inclusions" in Gems, Etc. | by | Isaac Lea, LL. D. | Philadelphia: | Collins, Printer, 705 Jayne Street. | 1876.

This is the Separate of No. 277.

Copy in Library of Congress has date of June 20, 1876.

279.

LEA, ISAAC. Catalogue | of | the Published Works | of | Isaac Lea, LL. D. | From 1817 to 1876. | — | Philadelphia: | Collins, Printer, 705 Jayne Street. | 1876. 8°. pp. 22.

LIST OF SPECIES DISCUSSED AND DESCRIBED.

NOTE.

In this list the genera and species are arranged alphabetically according to their generic and specific designations. The names of genera are printed in SMALL CAPS. The abbreviated titles of publications are as follows:

J. A. N. S., Journal, (& P. A. N. S., Proceedings) Academy Natural Sciences, Philadelphia. T. A. P. S., Transactions, (& P. A. P. S., Proceedings) American Philosophical Society, Philadelphia. Obs. Gen. Unio, Observations on the Genus Unio. Con. Geol., Contributions to Geology.

The numbers in parentheses ( ) refer to the titles in the first part of this work.

ACOSTÆA.
J. A. N. S., (147) vol. iv, 1858, p. 45; (71) vol. ii, pp. 125-131; Obs. Gen. Unio, (150) vol. vi, p. 45.

A. Guadualana.
J. A. N. S., (71) vol. ii, 1851, pp. 125-131.

Achatina columba.
T. A. P. S., (81) vol. x, 1852, p. 296; Obs. Gen. Unio, (83) vol. v, p. 52.

A. flammata.
T. A. P. S., (51) vol. ix, 1841, p. 2; Obs. Gen. Unio, (56) vol. iv, p. 2.

A. folliculus.
T. A. P. S., (51) vol. ix, 1841, p. 3; Obs. Gen. Unio, (56) vol. iv, p. 3.

A. striata.
T. A. P. S., (20) vol. v, p. 85; (51) vol. ix, 1841, p. 3; P. A. P. S., (39) vol. ii, 1841, p. 31; Obs. Gen. Unio, (56) vol. iv, p. 3.

A. turbinata.
P. A. P. S., (39) vol. ii, 1841, p. 31; T. A. P. S., (51) vol. ix, 1841, p. 2; Obs. Gen. Unio, (56) vol. iv, p. 2.

A. Venuzemensis.
T. A. P. S., (20) vol. v, 1833, p. 84, pl. xix, f. 78; Obs. Gen. Unio, (21) vol. i, p. 196, pl. xix, f. 78.

ACTEON.
(18) Con. Geol., 1833, p. 115.

A. elevatus.
(18) Con. Geol., 1833, p. 113, pl. iv, f. 98.

A. lineatus.
(18) Con. Geol., 1833, pp. 19, 111, 112, pl. iv, f. 97.

A. melanellus.
(18) Con. Geol., 1833, p. 113, pl. iv, f. 99.

A. melanoides.
(18) Con. Geol., 1833, p. 115.

A. Noæ.
(18) Con. Geol., 1833, p. 111.

A. ovoides.
(18) Con. Geol., 1833, p. 112.

A. punctatus.
(18) Con. Geol., 1833, pp. 110, 208.

A. pygmæus.
(18) Con. Geol., 1833, p. 114, pl. iv, f. 101.

Acteon striatus.
(18) Con. Geol., 1833, pp. 112, 113, pl. iv, f. 100.

A. Wetherilli.
(18) Con. Geol., 1833, p. 213, pl. vi, f. 224.

ALASMODON.
T. A. P. S., (27) vol. vi, 1838, p. 115.

ALASMODONTA.
T. A. P. S., (12) vol. iii, 1829, p. 429, 443; (27) vol. vi, 1838, p. 117; J. A. N. S., (221) vol. v, 1863, p. 447; Obs. Gen. Unio, (21) vol. i, pp. 43, 57; (29) vol. ii, p. 117, (222) vol. x, p. 83.

A. abducta.
T. A. P. S., (27) vol. vi, 1838, p. 135; Obs. Gen. Unio, (29) vol. ii, p. 135.

A. ambigua.
T. A. P. S., (27) vol. vi, 1838, p. 128; Obs. Gen. Unio, (29) vol. ii, p. 128.

A. arcuata.
T. A. P. S., (12) vol. iii, 1829, p. 421; (20) vol. v, 1833, pp. 63, 87, 88; (27) vol. vi, 1838, pp. 134, 136; Obs. Gen. Unio, (21) vol. i, pp. 35, 175, 199, 200.

A. atropurpureum.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

A. badium.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

A. Bonellii.
T. A. P. S., (27) vol. vi, 1838, p. 135; Obs. Gen. Unio, (170) vol. vii, p. 54; (30) vol. ii, p. 135; J. A. N. S., (168) vol. iv, 1859, p. 236.

A. complanaria.
J. A. N. S., (221) vol. v, 1863, p. 446; Obs. Gen. Unio, (222) vol. x, p. 82.

A. complanata.
T. A. P. S., (15) vol. iv, 1831, p. 106; (20) vol. v, 1832, p. 28; (27) vol. vi, 1836, p. 78; 1838, pp. 118, 134; Obs. Gen. Unio, (21) vol. i, pp. 106, 116, 140; (29) vol. ii, pp. 118, 134; (222) vol. x, p. 84; J. A. N. S., (221) vol. v, 1863, p. 448.

A. confragosa.
T. A. P. S., (27) vol. vi, 1838, p. 135; Obs. Gen. Unio, (29) vol. ii, p. 135; (222) vol. x, p. 84; J. A. N. S., (221) vol. v, 1863, p. 448.

Alasmodonta costata.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

A. edentula.
T. A. P. S., (27) vol. vi, 1838, pp. 135, 138; (43) vol. viii, 1840, p. 222; (55) vol. x, 1845, p. 82; (79) vol. x, 1852, p. 293; Obs. Gen. Unio, (29) vol. ii, pp. 135, 138; (44) vol. iii, p. 60; (56) vol. iv, p. 82; (83) vol. v, p. 49; (205) vol. viii, p. 111.

A. falcata.
J. A. N. S., (159) vol. iv, 1859, pp. 224, 225; Obs. Gen. Unio, (170) vol. vii, pp. 42, 43.

A. hians.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

A. incurva.
T. A. P. S., (27) vol. vi, 1838, pp. 136, 149; Obs. Gen. Unio, (29) vol. ii, pp. 136, 149.

A. margaritifera.
T. A. P. S., (12) vol. iii, 1829, p. 421; (27) vol. vi, 1838, p. 136; Obs. Gen. Unio, (21) vol. i, p. 35; (29) vol. ii, p. 136.

A. marginata.
T. A. P. S., (12) vol. iii, 1829, p. 429; (15) vol. iv, 1830, p. 67; (20) vol. v, 1832, pp. 25, 91, 92, 107; (27) vol. vi, 1838, pp. 126, 135; Obs. Gen. Unio, (21) vol. i, pp. 43, 77, 137, 203, 204, 219; (29) vol. ii, pp. 126, 135; (215) vol. ix, p. 20; (222) vol. x, p. 82; J. A. N. S., (213) vol. v. 1862, p. 198; (221) vol. v, 1863, p. 446.

A. papyraceum.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

A. ponderosum.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

A. radiata.
T. A. P. S., (27) vol. vi, 1838, p. 135; Obs. Gen. Unio, (29) vol. ii, p. 135.

A. rugosa.
T. A. P. S., (15) vol. iv, 1830, p. 67; (27) vol. vi, 1838, pp. 135, 144; (43) vol. viii, 1840, p. 207; Obs. Gen. Unio, (21) vol. i, p. 77; (44) vol. iii, p. 45; (29) vol. ii, pp. 135, 144; (222) vol. x, p. 82.

A. scriptum.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

A. sculptilis.
T. A. P. S., (27) vol. vi, 1838, p. 135; Obs. Gen. Unio, (29) vol. ii, p. 135.

A. sulcatum.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

A. Tripolitana.
T. A. P. S., (27) vol. vi, 1838, pp. 136, 149; Obs. Gen. Unio, (29) vol. ii, pp. 136, 149.

A. truncata.
T. A. P. S., (27) vol. vi, 1838, p. 135; Obs. Gen. Unio, (29) vol. ii, p. 135.

A. undulata.
T. A. P. S., (12) vol. iii, 1829, p. 424; (15) vol. iv, 1831, p. 107; (20) vol. v, 1833, p. 91; (27) vol. vi, 1838, pp. 72, 118, 135; Obs. Gen. Unio, (21) vol. i, pp. 38, 117, 203; (29) vol. ii, pp. 72, 118, 135.

Alasmodonta viridis.
T. A. P. S., (27) vol. vi, 1838, p. 144; Unio, (29) vol. ii, p. 144.

A. Yulaensis.
J. A. N. S., (243) vol. vi, 1866, p. 155; Unio, (244) vol. xi, p. 111.

AMMONITES.
T. A. P. S., (36) vol. vii, 1840, p. 252; (145) vol. x, 1858, pp. 218, 221.

A. Americanus.
P. A. P. S., (33) vol. i, 1840, p. 226; (36) vol. vii, 1840, p. 255, pl. viii, f

A. Gibbonianus.
P. A. P. S., (33) vol. i, 1840, p. 226; (36) vol. vii, 1840, p. 254, pl. viii, f

A. occidentalis.
P. A. P. S., (33) vol. i, 1840, p. 226; (36) vol. vi, 1840, p. 254, pl. viii, f.

A. Tocaimaensis.
P. A. P. S., (33) vol. i, 1840, p. 226; (36) vol. vii, 1840, p. 253, pl. viii, f

A. Vanuxemensis.
P. A. P. S., (33) vol. i, 1840, p. 226; (36) vol. vii, 1840, p. 254, pl. viii, f

AMNICOLA.
T. A. P. S., (51) vol. ix, 1841, p. 16; (214) vol. v, 1862, pp. 218, 269; Unio, (56) vol. iv, p. 16; (215) v 40, 91.

A. Currieriana.
J. A. N. S., (243) vol. vi, 1866, p. 18 f. 118; Obs. Gen. Unio, (244) vol pl. xxiv, f. 118.

A. isogona.
T. A. P. S., (51) vol. ix, 1841, p. 16; Unio, (56) vol. iv, p. 16.

A. limosa.
T. A. P. S., (51) vol. ix, 1841, p. 13; Unio, (56) vol. iv, p. 13.

A. lustrica.
T. A. P. S., (51) vol. ix, 1841, p. 13; Unio, (56) vol. iv, p. 13.

A. orbiculata.
P. A. P. S., (39) vol. ii, 1841, p. 34; (51) vol. ix, 1841, pp. 16, 17; Obs. (56) vol. iv, pp. 16, 17.

A. porata.
T. A. P. S., (51) vol. ix, 1841, p. 13; Unio, (56) vol. iv, p. 13.

A. parva.
P. A. P. S., (39) vol. ii, 1841, p. 34; (51) vol. ix, 1841, p. 16; Obs. Gen vol. iv, p. 16.

AMPHIDESMA.
(18) Con. Geol., 1833, p. 43.

Ampullaria aurostoma.
P. A. N. S., (113) vol. viii, 1856, p. N. S., (243) vol. vi, 1866, p. 114, 4; Obs. Gen. Unio, (244) vol. xi xxii, f. 4.

A. carinata.
T. A. P. S., (27) vol. vi, 1838, p. 90; Unio, (29) vol. ii, p. 90.

A. Celebensis.
J. A. N. S., (243) vol. vi, 1866, p. 114; Unio, (244) vol. xi, p. 70.

Phidiema crassa.

J. A. N. S., (243) vol. vi, 1866, p. 115; Obs. Gen. Unio, (244) vol. xi, p. 71.

Spurna.

T. A. P. S., (20) vol. v, 1834, p. 116; Obs. Gen. Unio, (21) vol. i, p. 228.

Suasta.

T. A. P. S., (20) vol. v, 1834, p. 116; Obs. Gen. Unio, (21) vol. i, p. 228.

Vagellata.

J. A. N. S., (243) vol. vi, 1866, p. 113; Obs. Gen. Unio, (244) vol. xi, p. 70.

Vexillis.

P. A. N. S., (113) vol. viii, 1856, p. 110; J. A. N. S., (243) vol. vi, 1866, p. 113, pl. xxii, f. 1; Obs. Gen. Unio, (244) vol. xi, p. 70, pl. xxii, f. 1.

PULLARIA.

Hoptonensis.

T. A. P. S., (20) vol. v, 1834, p. 115, pl. xix, f. 84; Obs. Gen. Unio, (21) vol. i, p. 227, pl. xix, f. 84.

Neritoides.

J. A. N. S., (243) vol. vi, 1866, p. 156; Obs. Gen. Unio, (244) vol. xi, pp. 112, 113.

Ovata.

J. A. N. S., (243) vol. vi, 1866, p. 114; Obs. Gen. Unio, vol. xi, p. 71.

paludosa.

T. A. P. S., (20) vol. v, 1834, p. 116; Obs. Gen. Unio, (21) vol. i, p. 228.

Pusiosa.

T. A. P. S., (27) vol. vi, 1834, p. 16, pl. xxiii, f. 77; J. A. N. S., (243) vol. vi, 1866, p. 115; Obs. Gen. Unio, (29) vol. ii, p. 16, pl. xxiii, f. 77; (244) vol. xi, p. 71.

Subaformis.

P. A. N. S., (113) vol. viii, 1856, p. 110; J. A. N. S., (243) vol. vi, 1866, p. 114, pl. xxii, f. 3; Obs. Gen. Unio, (244) vol. xi, p. 70, pl. xxii, f. 3.

Turbinis.

P. A. N. S., (113) vol. viii, 1856, p. 110; J. A. N. S., (243) vol. vi, 1866, p. 113, pl. xxii, f. 2; Obs. Gen. Unio, (244) vol. xi, p. 70, pl. xxii, f. 2.

Pustina Claibornensis.

(18) Con. Geol., 1833, p. 40, pl. i, f. 8.

PUSTULOSA.

P. A. P. S., (48) vol. ii, 1842, p. 241; T. A. P. S., (43) vol. viii, 1841, p. 143; (51) vol. ix, 1842, pp. 14, 24; J. A. N. S., (214) vol. v, 1862, pp. 218, 261, 346; (243) vol. vi, 1866, pp. 150, 157; P. A. N. S., (201) vol. xiii, 1861, p. 393; Obs. Gen. Unio, (44) vol. iii, p. 1; (56) vol. iv, pp. 14, 24; (215) vol. ix, pp. 40, 83, 168; (244) vol. xi, pp. 106, 113.

Rella.

P. A. P. S., (40) vol. ii, 1841, p. 83.

Serrulata.

P. A. P. S., (39) vol. ii, 1841, p. 34; T. A. P. S., (51) vol. ix. 1841, p. 15; Obs. Gen. Unio, (56) vol. iv, p. 15.

Subtorta.

P. A. N. S., (182) vol. xii, 1860, p. 187; J. A. N. S., (214) vol. v, 1862, p. 258, pl. xxxv, f. 66; Obs. Gen. Unio, (215) vol. ix, p. 80, pl. xxxv, f. 66.

Aculosa Coosaensis.

P. A. N. S., (193) vol. xiii, 1861, p. 54; J. A. N. S., (214) vol. v, 1862, p. 257, pl. xxxv, f. 65; Obs. Gen. Unio, (215) vol. ix, p. 79, pl xxxv, f. 65.

A. dentata.

P. A. P. S., (39) vol. ii, 1841, p. 34.

A. dissimilis.

T. A. P. S., (51) vol. ix, 1841, pp. 13, 15; Obs. Gen. Unio, (56) vol. iv, pp. 13, 15.

A. Downiei.

J. A. N. S., (258) vol. vi, 1868, p. 342, pl. liv, f. 28; Obs. Gen. Unio, (259) vol. xii, p. 102, pl. liv, f. 28.

A. flammata.

P. A. P. S., (48) vol. ii, 1842, p. 243; T. A. P. S., (51) vol. ix, 1842, pp. 29, 30; Obs. Gen. Unio, (56) vol. iv, pp. 29, 30.

A. Foremani.

P. A. P. S., (48) vol. ii, 1842, p. 243; T. A. P. S., (51) vol. ix, 1842, p. 29; Gen. Obs. Unio, (56) vol. iv, p. 29.

A. formosa.

P. A. N. S., (182) vol. xii, 1860, p. 187; J. A. N. S., (214) vol. v, 1862, p. 254, pl. xxxv, f. 61; Obs. Gen. Unio, (215) vol. ix, p. 76, pl. xxxv, f. 61.

A. gibbosa.

P. A. P. S., (39) vol. ii, 1841, p. 34; T. A. P. S., (51) vol. ix, 1841, p. 15; Obs. Gen. Unio, (56) vol. iv, p. 15.

A. Griffithiana.

P. A. P. S., (40) vol. ii, 1841, p. 83; T. A. P. S., (51) vol. ix, 1841, p. 20; Obs. Gen. Unio, (56) vol. iv, p. 20.

A. incisa.

P. A. P. S., (48) vol. ii, 1842, p. 243; T. A. P. S. (51) vol. ix, 1842, p. 28; (55) vol. x, 1845, p. 93; Obs. Gen. Unio, (56) vol. iv, pp. 28, 93.

A. inflata.

T. A. P. S., (43) vol. viii, 1841, p. 172; Obs. Gen. Unio, (44) vol. iii, p. 10.

A. Lewisii.

P. A. N. S., (193) vol. xiii, 1861, p. 54; J. A. N. S., (214) vol. v, 1862, p. 257, pl. xxxv, f. 64; Obs. Gen. Unio, (215) vol. xi, p. 79, pl. xxxv, f. 64.

A. picta.

J. A. N. S., (214) vol. v, 1862, p. 255; Obs. Gen. Unio, (215) vol. ix, p. 77.

A. prærosa.

T. A. P. S., (55) vol. x, 1845, p. 92; J. A. N. S., (214) vol. v, 1862, pp. 255, 256; (243) vol. vi, 1866, p. 150; Obs. Gen. Unio, (56) vol. iv, p. 92; (215) vol. ix, pp. 77, 78; (244) vol. xi, p., 106.

A. rubiginosa.

P. A. P. S., (40) vol. ii, 1841, p. 83; T. A. P. S., (51) vol. ix, 1841, p. 20; Obs. Gen. Unio, (56) vol. iv, p. 20; (215) vol. ix, p. 43; J. A. N. S., (214) vol. v, 1862, p. 221.

A. Showalterii.

P. A. N. S., (178) vol. xii, 1860, p. 93; J. A. N. S., (214) vol. v, 1862, p. 255, pl. xxxv, f. 62; Obs. Gen. Unio, (215) vol. ix, p. 77, pl. xxxv, f. 62.

Anculosa solida.
P. A. P. S., (48) vol. ii, 1842, p. 243; T. A. P. S., (51) vol. ix, 1842, p. 29; Obs. Gen. Unio, (56) vol. iv, p. 29.

A. squalida.
T. A. P. S., (55) vol. x, 1845, p. 92, pl. ix, f. 50; Obs. Gen. Unio, (56) vol. iv, p. 92, pl. ix, f. 50; P. A. P. S., (53) vol. iv, 1845, p. 167.

A. subglobosa.
T. A. P. S., (51) vol. ix, 1841, p. 15; Obs. Gen. Unio, (56) vol. iv, p. 15.

A. tintinnabulum.
T. A. P. S., (55) vol. x, 1845, p. 93, pl. ix, f. 51; J. A. N. S., (214) vol. v, 1862, p. 258; Obs. Gen. Unio, (56) vol. iv, p. 93, pl. ix, f. 51; (215) vol. ix, p. 80; P. A. P. S., (53) vol. iv, 1845, p. 167.

A. Troostiana.
P. A. P. S., (39) vol. ii, 1841, p. 34; T. A. P. S., (51) vol. ix, 1841, p. 15; Obs. Gen. Unio, (56) vol. iv, p. 15.

A. tuberculata.
P. A. P. S., (49) vol. ii, 1841, p. 83; T. A. P. S., (51) vol. ix, 1841, p. 21; Obs. Gen. Unio, (56) vol. iv, p. 21.

A. turbinata.
P. A. N. S., (193) vol. xiii, 1861, p. 54; J. A. N. S., (214) vol. v, 1862, p. 254, pl. xxxv, f. 60; Obs. Gen. Unio, (215) vol. ix, p. 76, pl. xxxv, f. 60.

A. variabilis.
P. A. P. S., (39) vol. ii, 1841, p. 34; T. A. P. S., (51) 1841, p. 15; Obs. Gen. Unio, (56) vol. iv, p. 15.

A. vittata.
P. A. N. S., (182) vol. xii, 1860, p. 188; J. A. N. S., (214) vol. v, 1862, p. 256, pl. xxxv, f. 63; Obs. Gen. Unio, (215) vol. ix, p. 78, pl. xxxv, f. 63.

ANCULOTUS.
T. A. P. S., (51) vol. ix, 1841, p. 14; Obs. Gen. Unio, (56) vol. iv, p. 14.

A. carinatus.
T. A. P. S., (43) vol. viii, 1841, p. 172; Obs. Gen. Unio, (44) vol. iii, p. 10.

A. costatus.
T. A. P. S., (43) vol. viii, 1841, p. 173; Obs. Gen. Unio, (44) vol. iii, p. 11.

A. Kirtlandianus.
T. A. P. S., (43) vol. viii, 1841, p. 172; Obs. Gen. Unio, (44) vol. iii, p. 10.

A. subglobosa.
T. A. P. S., (51) vol. ix, 1841, p. 14; Obs. Gen. Unio, (56) vol. iv, p. 14.

Ancylus crassus.
J. A. N. S., (243) vol. vi, 1866, p. 186; Obs. Gen. Unio, (244) vol. xi, p. 142.

A. Nuttallii.
J. A. N. S., (243) vol. vi, 1866, p. 186; Obs. Gen. Unio, (244) vol. xi, p. 142.

A. Newberryi.
P. A. N. S., (143) vol. x, 1858, p. 166; J. A. N. S., (243) vol. vi, 1866, p. 185, pl. xxiv, f. 116; Obs. Gen. Unio, (244) vol. xi, p. 141, pl. xxiv, f. 116.

Ancylus patelloides.
P. A. N. S., (109) vol. viii, 1856, p. 80; (243) vol. vi, 1866, p. 185, pl. xxiv, Gen. Unio, (244) vol. xi, p. 141, pl.

A. præclarus.
J. A. N. S., (243) vol. vi, 1866, p. 185; Unio, vol. xi, p. 141.

ANODON.
T. A. P. S., (27) vol. vi, 1838, p. 115; Unio, (29) vol. ii, p. 115.

A. alutus.
T. A. P. S., (12) vol. iii, 1829, p. 443; Unio, (21) vol. i, p. 57.

A. areolatus.
T. A. P. S., (15) vol. iv, 1830, p. 67; (1838, pp. 115, 138; (43) vol. viii, 1 Obs. Gen. Unio, (21) vol. i, p. 7 ii, pp. 115, 138; (44) vol. iii, p. 60.

A. crassus.
T. A. P. S., (20) vol. v, 1833, p. 78; Unio, (21) vol. i, p. 190.

A. purpurascens.
T. A. P. S., (12) vol. iii, 1829, p. 454; Unio, (21) vol. i, p. 68.

A. radiatus.
J. A. N. S., (133) vol. iii, 1857, p. 317; Unio, (150) vol. vi, p. 37.

A. rugosus.
T. A. P. S., (12) vol. iii, 1829, p. 425; 1838, p. 138; Obs. Gen. Unio, (39; (29) vol. ii, p. 138.

ANODONTA.
T. A. P. S., (12) vol. iii, 1829, p. 442; 1838, pp. 114, 115, 117, 118, 136, 14 (43) vol. viii, p. 230; J. A. N. S., iv, 1858, pp. 44, 46; (213) vol. v, (221) vol. v, 1863, pp. 447, 451, 45 S., (167) vol. xii, 1860, p. 3; (173) p. 97; Obs. Gen. Unio, (21) vol. i vol. ii, pp. 114, 115, 117, 118, 136, 1 (44) vol. iii, p. 68; (150) vol. vi, (170) vol. vii, Introduction; (20 Introduction; (215) vol. ix, p. 8 x, pp. 83, 87, 89; (244) vol. xi, In Proc. Zoöl. Soc. Lond., (60) vol. p. 197; P. A. N. S., (118) vol. ix,

A. Abyssina.
T. A. P. S., (27) vol. vi, 1838, pp. 14 Gen. Unio, (29) vol. ii, pp. 140, 15

A. alatus.
T. A. P. S., (27) vol. vi, 1838, p. 136 Unio, (29) vol. ii, p. 136.

A. Amazonensis.
P. A. N. S., (175) vol. xii, 1860, p. 89; (220) vol. v, 1863, p. 395, pl. xlvi, Gen. Unio, (222) vol. x, p. 31, pl.

A. anatina.
T. A. P. S., (20) vol. v, 1833, pp. 92, 9 vi, 1838, p. 137; Obs. Gen. Unio pp. 204, 205; (29) vol. ii, p. 137.

A. angulata.
T. A. P. S., (27) vol. vi, 1838, pp. 97, 1 vol. viii, 1842, p. 246; J. A. N. S., 1866, p. 155; P. A. N. S., (109) v p. 81; Obs. Gen. Unio, (29) vol. ii 149; (44) vol. iii, p. 84; (244) vol

Anodonta anserina.

T. A. P. S., (27) vol. vi, 1838, pp. 139, 149; J. A. N. S., (220) vol. v, 1863, pp. 393, 397; Obs. Gen. Unio, (29) vol. ii, pp. 139, 149; (222) vol. x, pp. 29, 33.

A. aperta.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

A. arcuata.

T. A. P. S., (27) vol. vi, 1838, pp. 140, 149, 150; J. A. N. S., (168) vol. iv, 1859, pp, 237, 261; Obs. Gen. Unio, (29) vol. ii, pp. 140, 149, 150; (170) vol. vii, pp. 55, 79; Proc. Zoöl. Soc. Lond., (60) vol. xviii, 1850, p. 199.

A. areolatus.

T. A. P. S., vol. vi, 1838, pp. 47, 135; (79) vol. x, 1852, p. 289; Obs. Gen. Unio, (29) vol. ii, pp. 47, 135; (83) vol. v, p. 45.

A. areolus.

T. A. P. S., (20) vol. v, 1832, p. 45; Obs. Gen. Unio, (21) vol. i, p. 157.

A. argenea.

P. A. P. S., (35) vol. i, 1840, p. 289; T. A. P. S., (43) vol. viii, 1840, p. 223; pl. xix, f. 41; Obs. Gen. Unio, (44) vol. iii, p. 61; pl. xix, f. 41.

A. Arkansensis.

T. A. P. S., (79) vol. x, 1852, p. 293; pl. xxix, f. 56; Obs. Gen. Unio, (83) vol. v, p. 49; pl. xxix, f. 56; P. A. N. S., (93) vol. v, 1852, p. 252.

A. atra.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

A. Beali.

J. A. N. S., (242) vol. vi, 1866, p. 26, pl. ix, f. 25; Obs. Gen. Unio, (244) vol. xi, p. 30; pl. ix, f. 25.

A. Benedictensis.

T. A. P. S., (27) vol. vi, 1836, p. 77; 1838, pp. 137, 149; Obs. Gen. Unio, (29) vol. ii, pp. 77, 137, 149.

A. Benedictii.

J. A. N. S., (242) vol. vi, 1866, p. 28; Obs. Gen. Unio, (244) vol. xi, p. 32.

A. Blainvilliana.

T. A. P. S., (20) vol. v, 1833, p. 77, pl. xii, f. 35; (27) vol. vi, 1838, pp. 39, 140, 149; Obs. Gen. Unio, (21) vol. i, p. 189, pl. xii, f. 35; (29) vol. ii, pp. 139, 140, 149; (222) vol. x, pp. 13, 30, 52; J. A. N. S., (220) vol. v, 1863, pp. 377, 394.

A. Bridgesii.

J. A. N. S., (257) vol. vi, 1868, p. 291, pl. xlii, f. 104; Obs. Gen. Unio, (259) vol. xii, p. 51, pl. xlii, f. 104; P. A. N. S., (248) vol. xx, 1868, p. 95.

A. Buchanensis.

T. A. P. S., vol. vi, 1836, p. 47; 1838, pp. 140, 149, pl. xiv, f. 43; Obs. Gen. Unio, (29) vol. ii, pp. 47, 140, 149, pl. xiv, f. 43.

A. Burroughiana.

T. A. P. S., vol. v, 1834, p. 105, pl. xvi, f. 49; Obs. Gen. Unio, (21) vol. i, p. 117, pl. xvi, f. 49.

Anodonta Cailliaudii.

P. A. N. S., (187) vol. xii, 1860, p. 308; J. A. N. S., (220) vol. v, 1863, p. 395, pl. xlv, f. 297; Obs. Gen. Unio, (222) vol. x, p. 31, pl. xlv, f. 297.

A. Californiensis.

A. P. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 286, pl. xxv, f. 47; Obs. Gen. Unio, (83) vol. v, p. 42, pl. xxv, f. 47.

A. cataracta.

T. A. P. S., (15) vol. iv, 1830, pp. 46, 48, 82; (27) vol. vi, 1834, p. 2, 1836, pp. 51, 80, 1838, p. 138; Obs. Gen. Unio, (21) vol. i, pp. 92, 158, 160; (29) vol. ii, pp. 2, 51, 80, 138; (244) vol. xi, p. 32; J. A. N. S., (242) vol. vi. 1866, p. 28.

A. cellensis.

T. A. P. S., (27) vol. vi, 1838, p. 137; Obs. Gen. Unio, (29) vol. ii, p. 137.

A. Chaiziana.

T. A. P. S., (27) vol. vi, 1838, pp. 138, 149; Obs. Gen. Unio, (29) vol. ii, pp. 138, 149; (244) vol. xi, p. 41; J. A. N. S., (242) vol. vi, 1866, p. 37.

A. Chinensis.

T. A. P. S., (27) vol. vi, 1838, pp. 140, 150; Obs. Gen. Unio, (29) vol. ii, pp. 140, 150.

A. Chiquitana.

T. A. P. S., (27) vol. vi, 1838, p. 138; Obs. Gen. Unio, (29) vol. ii, p. 138.

A. Clappertoni.

T. A. P. S., (27) vol. vi, 1838, p. 141; Obs. Gen. Unio, (29) vol. ii, p. 141.

A. compressa.

T. A. P. S., (27) vol. vi, 1838, p. 137; Obs. Gen. Unio, (29) vol. ii, p. 137.

A. compresso-alata.

T. A. P. S., (12) vol. iii, 1829, p. 443; Obs. Gen. Unio, (21) vol. i, p. 57.

A. corpulenta.

T. A. P. S., (27) vol. vi, 1838, p. 139; Obs. Gen. Unio, (29) vol. ii, p. 139.

A. corpulentoides.

P. A. N. S., (255) vol. xx, 1868, p. 164.

A. Couperiana.

T. A. P. S., (43) vol. viii, 1840, pp. 227, 249, pl. xx, f. 46; Obs. Gen. Unio, (44) vol. iii, pp. 65, 87, pl. xx, f. 46; (222) vol. x, p. 87; J. A. N. S., (221) vol. v, 1863, p. 451.

A. Cowperiana.

P. A. P. S., (33) vol. i, 1840, p. 288.

A. crassa.

T. A. P. S., (20) vol. v., p. 78; (27) vol. vi, 1838, pp. 138, 140, 149; Obs. Gen. Unio, (29) vol. ii, pp. 138, 140, 149.

A. crepera.

P. Zoöl. Soc., Lond., (60) vol. xviii, 1850, p. 198; J. A. N. S., (168) vol. iv, 1859, p. 238, pl. xxxiv, f. 117; Obs. Gen. Unio, (170) vol. vii, p. 56, pl. xxxiv, f. 117.

A. crispata.

T. A. P. S., (20) vol. v, 1833, p. 93; (27) vol. vi, 1838, pp. 137, 150; (79) vol. x, 1852, p. 291; J. A. N. S., (133) vol. iii, 1857, p. 313; Obs. Gen. Unio, (21) vol. i, p. 205; (29) vol. ii, pp. 137, 150; (83) vol. v, p. 47; (150) vol. vi, p. 33.

Anodonta Cumingii.
P. Zoöl. Soc. Lond.; (60) vol. xviii, 1850, p. 199; J. A. N. S., (168) vol. iv, 1859, p. 235; Obs. Gen. Unio, (170) vol. vii, p. 53.

A. cuneata.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

A. curvatus.
T. A. P. S., (27) vol. vi, 1838, pp. 140,150; Obs. Gen. Unio, (29) vol. ii, pp. 140,150.

A. cygnea.
T. A. P. S., (15) vol. iv, 1830, p. 67; (20) vol. v, 1833, pp. 92, 93; J. A. N. S., (159) vol. iv, 1859, p. 232, 1860, p. 366; Obs. Gen. Unio, (21) vol. i, pp. 77,204,205; (29) vol. ii, pp. 81, 137, 149; (170) vol. vii, p. 50; (205) vol. viii, p. 48.

A. cylindracea.
T. A. P. S., (27) vol. vi, 1836, p. 45, 1838, pp. 140, 149; Obs. Gen. Unio, (29) vol. ii, pp. 45, 140, 149, pl. xiii, f. 40.

A. Dahomeyensis.
P. A. N. S., (152) vol. xi, 1859, p. 154; J. A. N. S., (168) vol. iv, 1859, p. 261, pl. xli, f. 141; Obs. Gen. Unio, (170) vol. vii, p. 79, pl. xli, f. 141.

A. Dallasiana.
P. A. N. S., (217) vol. xv. 1863, p. 190; J. A. N. S., (242) vol. vi, 1866, p. 29, pl. xi, f. 28; Obs. Gen. Unio, (244) vol. xi, p. 33, pl. xi, f. 28.

A. Danielsii.
P. A. N. S., (142) vol. x, 1858, p. 139; J. A. N. S., (189) vol. iv, 1860, p. 365, pl. lxiii, f. 190; Obs. Gen. Unio, (205) vol. viii, p. 47, pl. lxiii, f. 190.

A. Dariensis.
P. A. N. S., (142) vol. x, 1858, p. 139; J. A. N. S., (159) vol. iv, 1859, p. 230, pl. xxviii, f. 99; Obs. Gen. Unio, (170) vol. vii, p. 48, pl. xxviii, f. 99.

A. declivis.
T. A. P. S., (27) vol. vi, 1838, p. 138; Obs. Gen. Unio, (29) vol. ii, p. 138.

A. decora.
T. A. P. S., (27) vol. vi, 1836, pp. 64, 138, 149; (43) vol. viii, 1840, p. 224; J. A. N. S., (147) vol. iv, 1858, p. 49, pl. v, f. 34; (189) vol. iv, 1860, p. 366; (213) vol. v, 1862, p. 213; (221) vol. v, 1863, pp. 452,453; P. A. N. S., (135) vol. x, 1858, pp. 13, 14; Obs. Gen. Unio, (29) vol. ii, pp. 64, 138, 149, pl. xx, f. 63; (44) vol. iii, p. 62; (150) vol. vi, p. 49, pl. v, f. 34; (205) vol. viii, p. 48; (215) vol. ix, p. 35; (222) vol. x, p. 88, 89.

A. denigrata.
P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, pp. 285, 290, pl. xxv, f. 45; Obs. Gen. Unio, (83) vol. v, pp. 41, 46, pl. xxv, f. 45.

A. dentiens.
T. A. P. S., (27) vol. vi, 1838, p. 137; Obs. Gen. Unio, (29) vol. ii, p. 137.

A. digonota.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

A. dippas.
T. A. P. S., (27) vol. vi, 1838, p. 136; Obs. Gen. Unio, (29) vol. ii, p. 136.

Anodonta doliaris.
J. A. N. S., (220) vol. v, 1 vi, 1866, p. 24, pl. vii Unio, (222) vol. x, p. 2 pl. viii, f. 23.

A. Dallasiana.
J. A. N. S., (242) vol. vi, 1 Obs. Gen. Unio, (244) 28.

A. dubia.
T. A. P. S., (27) vol. vi, 183 Unio, (29) vol. ii, p. 14

A. Dunlapiana.
T. A. P. S., (43) vol. viii, 1 f. 65; P. A. P. S., (45 N. S., (159) vol. iv, 1859 1560, p. 374; Obs. Gen. 86, pl. xxvii, f. 65; ((205) vol. viii, p. 56.

A. edentula.
T. A. P. S., (27) vol. vi, 183 138,149; (43) vol. viii, 1 x, 1845, p. 82; (79) vol. N. S., (147) vol. iv, 18 (203) vol. v, 1861, p. 10 pp. 451, 453; (242) vol. Gen. Unio, (29) vol. ii (44) vol. iii, p. 69; (56 vol. v, p. 45; (150) vol. (205) vol. viii, p. 111; ((244) vol. xi, p. 31.

A. elongata.
T. A. P. S., (20) vol. v, 183 1838, pp. 140,149; Obs. i, p. 192; (29) vol. ii, pp

A. ensiformis.
T. A. P. S., (27) vol. vi, 18 vol. x, 1852, p. 293; Obs. ii, pp. 140, 149.

A. esula.
T. A. P. S., (27) vol. vi, 18 Gen. Unio, (29) vol. ii, 1

A. exilior.
P. A. N. S., (266) vol. xxiv,

A. exilis.
T. A. P. S., (27) vol. vi, 1836 1838, pp. 140, 150; (79) Obs. Gen. Unio, (29) vo pl. xxii, f. 68; (83) vol. xi, p. 35; J. A. N. S., (24

A. exotica.
T. A. P. S., (20) vol. v, 1833 vol. vi, 1838, pp. 139, 14 (21) vol. i, pp. 190, 191, 139, 141.

A. feminalis.
P. A. N. S, (109) vol. viii, 1 S., (243) vol. vi, 1866, Unio, (244) vol. xi, p. 1

A. Ferrarisii.
T. A. P. S., (27) vol. vi, 183 Unio, (29) vol. ii, p. 140.

A. ferruginea.
P. A. P. S., (35) vol. i, 1840, (43) vol. viii, 1840, p. 225 Gen. Unio, (44) vol. iii, 1

Anodonta Ferussaciana.

T. A. P. S., (20) vol. v, 1832, pp. 45, 46, pl. vi, f. 15; (27) vol. vi, 1836, pp. 46, 55, 79; 1838, pp. 106, 138, 149; (43) vol. viii, 1841, pp. 224, 231; (79) vol. x, 1852, p. 285; J. A. N. S., (147) vol. iv, 1858, p. 50, pl. v, f. 35; (170) vol. iv, 1859, p. 226; (189) vol. iv, 1860, p. 365; (203) vol. v, 1861, p. 109; (213) vol. v, 1862, p. 213; (221) vol. v, 1863, p. 451; P. A. N. S., (135) vol. x, 1858, pp. 13, 14; Obs. Gen. Unio, (21) vol. i, pp. 157, 158, pl. vi, f. 15; (29) vol. ii, pp. 46, 47, 48, 51, 55, 79, 106, 138, 149; (44) vol. iii, pp. 62, 69; (83) vol. v, p. 41; (150) vol. vi, p. 50, pl. v, f. 35; (170) vol. vii, p. 44; (205) vol. viii, pp. 47, 113; (215) vol. ix, p. 35; (222) vol. x, p. 87.

A. footianilis.

T. A. P. S., (27) vol. vi, 1836, pp. 51, 52, 54, 80; 1838, pp. 118, 138, 149; (43) vol. viii, 1840, pp. 221, 249; (79) vol. x, 1852, p. 286; J. A. N. S., (133) vol. iii, 1857, p. 317; (159) vol. iv, 1859, pp. 231, 232; (189) vol. iv, 1860, pp. 363, 364; (213) vol. v, 1862, pp. 213, 216; (221) vol. v, 1863, pp. 451, 455; (242) vol. vi, 1866, pp. 28, 29; Obs. Gen. Unio, (29) vol. ii, pp. 51, 52, 54, 80, 118, 138, 149; (44) vol. iii, pp. 59, 87; (83) vol. v, p. 42; (150) vi, p. 37; (170) vol. vii, pp. 49, 50; (205) vol. viii, pp. 45, 46; (215) vol. ix, pp. 35, 38; (222) vol. x, pp. 87, 91; (244) vol. xi, pp. 32, 33.

A. folium.

T. A. P. S., (27) vol. vi, 1838, pp. 140, 150; Obs. Gen. Unio, (29) vol. ii, pp. 140, 150.

A. Footiana.

P. A. N. S., (35) vol. i, 1840, p. 289; T. A. P. S., (43) vol. viii, 1840, p. 225, pl. xx, f. 44; J. A. N. S., (189) vol. iv, 1860, p. 364; Obs. Gen. Unio, (44) vol. iii, p. 63, pl. xx, f. 44; (205) vol. viii, p. 46.

A. Forbesiana.

P. A. N. S., (176) vol. xii, 1860, p. 92; J. A. N. S., (220) vol. v, 1863, pp. 393, 397, pl. xlvii, f. 301; Obs. Gen. Unio, (222) vol. x, pp. 29, 33; pl. xlvii, f. 301.

A. fragilis.

T. A. P. S., (20) vol. v, 1833, p. 93; (27) vol. vi, 1837, p. 96; 1838, pp. 138, 149; (43) vol. viii, 1840, p. 226; J. A. N. S., (189) vol. iv, 1860, p. 364; (203) vol. v, 1861, p. 109); (221) vol. v, 1863, p. 454; Obs. Gen. Unio, (21) vol. i, p. 205; (29) vol. ii, pp. 96, 138, 149; (44) vol. iii, p. 64; (205) vol. viii, pp. 46, 113; (222) vol. x, p. 90.

A. Georgiae.

T. A. P. S., (27) vol. vi, 1838, pp. 139, 149; Obs. Gen. Unio, (29) vol. ii, pp. 139, 149.

A. Gesnerii.

P. A. N. S., (142) vol. x, 1858, p. 139; J. A. N. S., (159) vol. iv, 1859, pp. 231, 232, pl. xxxi, f. 109; Obs. Gen. Unio, (170) vol. vii, pp. 49, 50, pl. xxxi, f. 109.

A. gibbosa.

T. A. P. S., (12) vol. iii, 1829, p. 443; (20) vol. v, 1832, p. 47; (27) vol. vi, 1838, pp. 139, 149; (43) vol. viii, 1840, pp. 226, 227; J. A. N. S., (159) vol. iv, 1859, p. 231; (203) vol. v, 1861, p. 106; Obs. Gen. Unio, (21) vol. i, pp. 57, 159; (29) vol. ii, pp. 139, 149; (44) vol. iii, pp. 64, 65; (170) vol. vii, p. 49; (205) vol. viii, p. 110.

Anodonta gigantea.

T. A. P. S., (20) vol. v, 1833, p. 93; (27) vol. vi, 1834, p. 1, pl. i, f. 1; (1838) pp. 139, 149; J. A. N. S., (221) vol. v, 1863, p. 454; Obs. Gen. Unio, (21) vol. i, p. 205; (29) vol. ii, pp. 1, 139, 149, pl. i, f. 1; (222) vol. x, p. 90.

A. glauca.

T. A. P. S., (12) vol. iii, 1829, p. 443; (20) vol. v, 1833, p. 94; 27 vol. vi, 1838, pp. 138, 149; (79) vol. x, 1852, p. 292; Obs. Gen. Unio, (21) vol. i, pp. 57, 206; (29) vol. ii, pp. 138, 149; (83) vol. v, p. 48.

A. globosa.

P. A. P. S., (39) vol. ii, 1841, p. 31; T. A. P. S., (43) vol. viii, 1841, p. 241, pl. xxiv, f. 56; (79) vol. x, 1852, p. 289; Obs. Gen. Unio, (44) vol. iii, p. 79, pl. xxiv, f. 56.

A. gracilis.

P. Zoöl. Soc., Lond., (60) vol. xviii, 1850, p. 197; J. A. N. S., (168) vol. iv, 1859, p. 239, pl. xxxiv, f. 119; Obs. Gen. Unio, (170) vol. vii, p. 57, pl. xxxiv, f. 119.

A. grandioides.

P. A. N. S., (255) vol. xx, 1868, p. 164.

A. Granadensis.

J. A. N. S., (257) vol. vi, 1868, p. 288, pl. xli, f. 100; Obs. Gen. Unio, (259) vol. xii, p. 48, pl. xli, f. 100; P. A. N. S., (248) vol. xx, 1868, p. 96.

A. grandis.

T. A. P. S., (27) vol. vi, 1838, pp. 139, 149; Obs. Gen. Unio, (29) vol. ii, pp. 139, 149.

A. grossa.

T. A. P. S., (27) vol. vi, 1838, p. 137; Obs. Gen. Unio, (29) vol. ii, p. 137.

A. Hallenbeckii.

P. A. N. S., (142) vol. x, 1858, p. 138; J. A. N. S., vol. iv, 1859, p. 232, pl. 32, f. 112; Obs. Gen. Unio, (170) vol. vii, p. 50, pl. xxxii, f. 112.

A. Harpethensis.

P. A. P. S., (35) vol. i, 1840, p. 289; T. A. P. S., (43) vol. viii, 1840, p. 224, pl. xix. f. 42; Obs. Gen. Unio, (44) vol. iii, p. 62, pl. xix, f. 42.

A. Henryana.

P. A. P. S., (125) vol. ix, 1857, p. 102; J. A. N. S., (189) vol. iv, 1860, p. 373, pl. lxvi, f. 198; Obs. Gen. Unio, (205) vol. viii, p. 55, pl. lxvi, f. 198.

A. Holtonis.

P. A. P. S., (122) vol. ix, 1857, p. 85; J. A. N. S., (133) vol. iii, 1857. p. 316, pl. xxxii, f. 31; Obs. Gen. Unio, (150) vol. vi, p. 36, pl. xxxii, f. 31.

A. imbecilis.

T. A. P. S., (27) vol. vi, 1838, p. 138; J. A. N. S., (147) vol. iv, 1858, p. 50, pl. v, f. 36; (148) vol. iv, 1858, p. 51; (221) vol. v, 1863, pp. 409, 449; Obs. Gen. Unio, (29) vol. ii, p. 138; (150) vol. vi, pp. 50, 51, pl. v, f. 36; (222) vol. x, pp. 45, 85.

A. implicata.

T. A. P. S., (27) vol. vi, 1838, p. 138; Obs. Gen. Unio, (29) vol. ii, p. 138; (244) vol. xi, pp. 32, 33; J. A. N. S., (242) vol. vi, 1866, pp. 28, 29.

A. impura.

T. A. P. S., (27) vol. vi, 1838, pp. 140, 150; Obs. Gen. Unio, (29) vol. ii, pp. 140, 150.

Anodonta inæquivalva.

J. A. N. S., (257) vol. vi, 1868, p. 292; pl. xliii, f. 108; Obs. Gen. Unio, (259) vol. xii, p. 52; pl. xliii, f. 108; P. A. N. S., (248) vol. xx, 1868, p. 95.

A. incerta.

T. A. P. S., (20) vol. v, 1832, pp. 45, 46, pl. vi, f. 16; (27) vol. vi, 1836, pp. 47, 55; 1838, pp. 138, 149; (43) vol. viii, 1840, 227; 1841, p. 231; Obs. Gen. Unio, (21) vol. i, pp. 157, 158; pl. vi, f. 16; (29) vol. ii, pp. 47, 55, 138, 149; (44) vol. iii, pp. 65, 69; P. A. N. S., (101) vol. vii, 1854, p. —.

A. inflata.

T. A. P. S., (27) vol. vi, 1838, pp. 139, 144; Obs. Gen. Unio, (29) vol. ii, pp. 139, 144.

A. intermedia.

T. A. P. S., (20) vol. v, 1833, p. 93; (27) vol. vi, 1838, p. 137; Obs. Gen. Unio, (29) vol. ii, p. 137.

A. Jewettii.

J. A. N. S., (257) vol. vi, 1868, p. 289, pl. xli, f. 101; Obs. Gen. Unio, (259) vol. xii, p. 49, pl. xli, f. 101; P. A. N. S., (248) vol. xx, 1868, p. 95.

A. Kennerlyi.

P. A. N. S., (185) vol. xii, 1860, p. 306; J. A. N. S., (203) vol. v, 1861, p. 108, pl. xviii, f. 256; Obs. Gen. Unio, (205) vol. viii, p. 112, pl. xviii, f. 256.

A. Kennicottii.

P. A. N. S., (195) vol. xiii, p. 56; J. A. N. S., (213) vol. v, 1862, pp. 212, 214, pl. xxxiii, f. 283; (242) vol. vi, 1866, p. 30; Obs. Gen. Unio, (215) vol. ix, pp. 34, 36, pl. xxxiii, f. 283; (244) vol. xi, p. 34.

A. lata.

T. A. P. S., (27) vol. vi, 1838, pp. 131, 144; Obs. Gen. Unio, (29) vol. ii, pp. 131, 144.

A. lato-marginata.

T. A. P. S., (20) vol. v, 1833, p. 76, pl. xii, f. 34; (27) vol. vi, 1838, pp. 139, 149; Obs. Gen. Unio, (21) vol. i, p. 188, pl. xii, f. 34; (29) vol. ii, pp. 139, 149; (170) vol. vii. p. 55; (222) vol. x, pp. 13, 27, 30; J. A. N. S., (168) vol. iv, 1859, p. 237; (220) vol. v, 1863, pp. 377, 391, 393; P. Zool. Soc., Lond., (60) vol. xviii, 1850, p. 199; P. A. N. S., (179) vol. xii, 1860, p. 97.

A. lacustris.

P. A. N. S., (118) vol. ix, 1857, p. 18; (121) vol. ix, 1857, p. 84; J. A. N. S., (189) vol. iv, 1860, p. 363, pl. lxii, f. 188; Obs. Gen. Unio, (205) vol. viii, p. 45, pl. lxii, f. 188.

A. lenticularis.

J. A. N. S., (257) vol. vi, 1868, p. 290, pl. xli, f. 102; Obs. Gen. Unio, (259) vol. xii, p. 50, pl. xli, f. 102; P. A. N. S., (248) vol. xx, 1868, p. 95.

A. Leonensis.

J. A. N. S., (242) vol. vi, 1866, p. 25, pl. ix, f. 24; (274) vol. viii, 1874, p. 67; Obs. Gen. Unio, (244) vol. xi, p. 29, pl. ix, f. 24; (275) vol. xiii, p. 71; P. A. N. S., (206) vol. xiv, 1862, p. 169.

Anodonta Lewisii.

P. A. N. S., (121) vol. ix, 1857, p. 24
(147) vol. iv, 1858, p. 49, pl. v
vol. iv, 1860, pp. 362, 364, pl.
(221) vol. v, 1863, pp. 452, 454
Unio, (150) vol. vi, p. 49, pl. v
vol. viii, pp. 44, 46, pl. lxii, f. 18
x, pp. 88, 90.

A. Linnæana.

P. A. P. S., (93) vol. v, 1852, p. 252;
(79) vol. x, 1852, pp. 289, 291,
51; Obs. Gen. Unio, (83) vol.
pl. xxvii, f. 51.

A. limnoica.

T. A. P. S., (27) vol. vi, 1838, pp. 1
Gen. Unio, (29) vol. ii, pp. 138,

A. lituratum.

T. A. P. S., (27) vol. vi, 1838, p. 13
Unio, (29) vol. ii, p. 139.

A. longinus.

T. A. P. S., (27) vol. vi, 1838, p. 14
Unio, (29) vol. ii, p. 142.

A. lucida.

T. A. P. S., (27) vol. vi, 1838, p. 14
Unio, (29) vol. ii, p. 140.

A. lugubris.

T. A. P. S., (27) vol. vi, 1838, pp. 1
Gen. Unio, (29) vol. ii, pp. 140,

A. luteola.

P. A. N. S., (140) vol. x, 1858, p. 118
(168) vol. iv, 1859, p. 267, pl.
Obs. Gen. Unio, (170) vol. vii,
f. 147.

A. magnifica.

T. A. P. S., (27) vol. vi, 1838, pp. 1
Gen. Unio, (29) vol. ii, pp. 13
vol. vi, p. 40; J. A. N. S., (133)
p. 320.

A. marginata.

T. A. P. S., (27) vol. vi, 1838, p. 13
Unio, (29) vol. ii, p. 138; J. A.
vol. vi, 1866, p. 27; Obs. Gen
vol. xi, p. 31.

A. Maryattana.

P. A. P. S., (35) vol. i, 1840, p. 289
(43) vol. viii, 1840, p. 226; Ob
(44) vol. iii, p. 64, pl. lxiv, f. 45

A. modesta.

P. A. N. S., (121) vol. ix, 1857, p. 84
(189) vol. iv, 1860, p. 364, pl.
Obs. Gen. Unio, (205) vol. viii,
f. 189.

A. Montezuma.

P. A. P. S., (39) vol. ii, 1841, p. 31
(43) vol. viii, 1841, p. 240, pl. xx
Gen. Unio, (44) vol. iii, p. 78.

A. Moricandii.

P. A. N. S., (175) vol. xii, 1860, p. 89
(220) vol. v, 1863, p. 396, pl.
Obs. Gen. Unio, (222) vol. x, p.
f. 303.

A. Mortoniana.

T. A. P. S., (20) vol. v, 1833, p. 80,
(27) vol. vi, 1838, pp. 138, 15
Unio, (21) vol. i, p. 192, pl. x
vol. ii, pp. 138, 150.

odonta Napoensis.

J. A. N. S., (258) vol. vi, 1868, p. 324, pl. liii, f. 137; Obs. Gen. Unio, (259) vol. xii, p. 84; P. A. N. S., (254) vol. xx, 1868, p. 162.

Newtoensis.

T. A. P. S., vol. vi, 1836, p. 79, pl. xxi, f. 66, 1838, pp. 138, 149; J. A. N. S., vol. vi, 1866, p. 28; Obs. Gen. Unio, (29) vol. ii, pp. 79, 138, 149, pl. xxi, f. 66.

Nuttalliana.

T. A. P. S., (27) vol. vi, 1836, p. 77, pl. xx, f. 62, 1838, pp. 137, 149; Obs. Gen. Unio, (29) vol. ii, pp. 77, 137, 149, pl. xx, f. 62.

oblita.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 290; Obs. Gen. Unio, (83) vol. v, p. 46, pl. xxviii, f. 52.

obtusa.

T. A. P. S., (27) vol. vi, 1838, pp. 139, 150; Obs. Gen. Unio, (29) vol. ii, pp. 139, 150.

obvoluta.

T. A. P. S., (27) vol. vi, 1838, p. 137; Obs. Gen. Unio, (29) vol. ii, p. 137.

Ohiensis.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

opaca.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 285, pl. xxv, f. 46; Obs. Gen. Unio, (83) vol. v, p. 41, pl. xxv, f. 46.

Oregonensis.

T. A. P. S., (27) vol. vi, 1836, p. 80, pl. xxi, f. 67, 1838, pp. 138, 149; J. A. N. S., (213) vol. v, 1862, p. 213; (221) p. 454; Obs. Gen. Unio, (29) vol. ii, pp. 67, 138, 149, pl. xxi, f. 67; (215) vol. ix, p. 35; (222) vol. x, p. 90.

ovata.

T. A. P. S., (27) vol. vi, 1834, p. 2, pl. ii, f. 2, 1838, pp. 138, 149; Obs. Gen. Unio, (29) vol. ii, pp. 2, 138, 149, pl. ii, f. 2; (150) vol. vi, p. 49, pl. v, f. 33; (222) vol. x, p. 88; J. A. N. S., (147) vol. iv, 1858, p. 49, pl. v, f. 33; (221) vol. v, 1863, p. 452.

pallida.

J. A. N. S., (221) vol. v, 1863, p. 455; Obs. Gen. Unio, (222) vol. x, p. 91.

palna. (Same as *plana.*)

T. A. P. S., (20) vol. v, 1832, p. 48, pl. vii, f. 18; Obs. Gen. Unio, (21) vol. i, p. 160, pl. vii, f. 18.

paludosa.

T. A. P. S., (27) vol. vi, 1838, p. 137; Obs. Gen. Unio, (29) vol. ii, p. 137.

Paridii.

T. A. P. S., (27) vol. vi, 1838, pp. 139, 150; Obs. Gen. Unio, (29) vol. ii, pp. 139, 150.

Patagonia.

T. A. P. S., (20) vol. v, 1833, p. 77; Obs. Gen. Unio, (21) vol. i, p. 189.

Patagonica.

T. A. P. S., (20) vol. v, 1833, p. 94; (27) vol. vi, 1838, pp. 139, 150; Obs. Gen. Unio, (21) vol. i, p. 206; (29) vol. ii, pp. 139, 150.

Anodonta pavonia.

T. A. P. S., (27) vol. vi, 1836, p. 78. pl. xxi, f. 65, 1838, pp. 138, 149; Obs. Gen. Unio, (29) vol. ii, pp. 65, 138, 149, pl. xxi, f. 65; (215) vol. ix, p. 38; J. A. N. S., (213) vol. v, 1862, p. 216.

A. Pazii.

J. A. N. S., (257) vol. vi, 1868, p. 274, pl. xxxvi, f. 86; Obs. Gen. Unio, (259) vol. xii, p. 34, pl. xxxvi, f. 86; P. A. N. S., (238) vol. xviii, p. 35.

A. penicillatus.

T. A. P. S., (27) vol. vi, 1838, p. 139; Obs. Gen. Unio, (29) vol. ii, p. 139.

A. Pennsylvanica.

T. A. P. S., (20) vol. v, 1833, p. 93; (27) vol. vi, 1838, p. 138; Obs. Gen. Unio, (21) vol. i, p. 205; (29) vol. ii, p. 138.

A. Pepiniana.

T. A. P. S., (27) vol. vi, 1837, p. 96, pl. xvi, f. 51; 1838, pp. 138, 149, 154; J. A. N. S., (213) vol. v, 1862, p. 214; Obs. Gen. Unio, (29) vol. ii, pp. 96, 138, 149, pl. xvi, f. 51; (215) vol. ix, p. 36.

A. piscinalis.

T. A. P. S., (27) vol. vi, 1838, p. 137; Obs. Gen. Unio, (29) vol. ii, p. 137.

A. plana. (See *palna.*)

T. A. P. S., (27) vol. vi, 1836, p. 64; 1838, pp. 138, 149; (43) vol. viii, 1841, p. 231; J. A. N. S., (221) vol. v. 1863, pp. 452, 453; Obs. Gen. Unio, (29) vol. ii, pp. 138, 149; (44) vol. iii, p. 69; (222) vol. x, pp. 88, 89; P. A. N. S., (101) vol. vii, 1854, p. —.

A. ponderosa.

T. A. P. S., (27) vol. vi, 1838, p. 137; Obs. Gen. Unio, (29) vol. ii, p. 137.

A. porcifer.

T. A. P. S., (27) vol. vi, 1838, pp. 139, 150; Obs. Gen. Unio, (29) vol. ii, pp. 139, 150.

A. proboscidalis.

T. A. P. S., (27) vol. vi, 1838, p. 137; Obs. Gen. Unio, (29) vol. ii, p. 137.

A. Puelchana.

T. A. P. S., (27) vol. vi, 1838, p. 140; Obs. Gen. Unio, (29) vol. ii, p. 140.

A. purpurascens.

T. A. P. S., (27) vol. vi, 1838, p. 133; Obs. Gen. Unio, (29) vol. ii, p. 133.

A. purpurea.

T. A. P. S., (27) vol. vi, 1838, pp. 138, 150; Obs. Gen. Unio, (29) vol. ii, pp. 138, 150.

A. pygmæa.

J. A. N. S., (257) vol. vi, 1868, p. 275; Obs. Gen. Unio, (259) vol. xii, p. 35.

A. pygmæum.

T. A. P. S., (27) vol. vi, 1838, p. 142; Obs. Gen. Unio, (29) vol. ii, p. 142.

A. radiatus.

T. A. P. S., vol. vi, 1838, p. 139; Obs. Gen. Unio, (29) vol. ii, p. 139.

A. Randalli.

P. A. N. S., (109) vol. viii, 1856, p. 81; J. A. N. S., (243) vol. vi, 1866, p. 155; Obs. Gen. Unio, (244) vol xi, p. 111.

Anodonta rubens.
T. A. P. S., (20) vol. v, 1833, p. 93; (27) vol. vi. 1838, p. 141; Obs. Gen. Unio, (21) vol. i, p. 205; (29) vol. ii, p. 141.

A. rubicunda.
P. A. N. S., (176) vol. xii, 1860, p. 92; J. A. N. S., (220) vol. v, 1863, p. 392, pl. xlvi, f. 299; Obs. Gen. Unio, (222) vol. x, p. 28, pl. xlvi, f. 299.

A. rugosus.
T. A. P. S., (20) vol. v, 1833, p. 93; Obs. Gen. Unio, (21) vol. i, p. 205.

A. rotunda.
J. A. N. S., (189) vol. iv, 1860, p. 361; (220) vol. v, 1863, pp. 377, 392, 395; Obs. Gen. Unio, (29) vol. ii, p. 139; (205) vol. viii, p. 43; (222) vol. x, pp. 13, 28, 31; T. A. P. S., (27) vol. vi, 1838, p. 139.

A. rotundovata.
P. A. N. S., (109) vol. viii, 1856, p. 81; J. A. N. S., (243) vol. vi. 1866, p. 155; Obs. Gen. Unio, vol. xi, p. 111.

A. salmonia.
T. A. P. S., (27) vol. vi, 1836, p. 45, pl. xiv, f. 41; 1838, pp. 138, 149; Obs. Gen. Unio, (29) vol. ii, pp. 45, 138, 149, pl. xiv, f. 41.

A. Schröteriana.
P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 292, pl. xxix, f. 55; Obs. Gen. Unio, (83) vol. v, p. 48, pl. xxix, f. 55.

A. Senegalensis.
P. A. N. S., (152) vol. xi, 1859, p. 154; J. A. N. S., (168) vol. iv, 1859, pp. 260, 261, pl. xli, f. 140; Obs. Gen. Unio, (170) vol. vii, pp. 78, 79, pl. xli, f. 140.

A. Shæfferiana.
P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 288, pl. xxvi, f. 50; Obs. Gen. Unio, (83) vol. v, p. 44, pl. xxvi, f. 50.

A. Showalterii.
J. A. N. S., (213) vol. v, 1862, p. 215, pl. xxxiii, f. 284; Obs. Gen. Unio, (215) vol. ix, p. 37, pl. xxxiii, f. 284.

A. siliquosus.
T. A. P. S., vol. vi, 1838, p. 142; Obs. Gen. Unio, (29) vol. ii, p. 142.

A. Simpsoniana.
P. A. N. S., (195) vol. xiii, 1861, p. 56; J. A. N. S., (213) vol. v, 1862, p. 212, pl. xxxii, f. 281; (242) vol. vi, 1866, p. 30; Obs. Gen. Unio, (215) vol. ix, p. 34; (244) vol. xi, p. 34.

A. sinuosa.
T. A. P. S., (20) vol. v, 1833, pp. 79, 94; (27) vol. vi, 1838, pp. 139, 140, 150; Obs. Gen. Unio, (21) vol. i, pp. 191, 206; (29) vol. ii, pp. 139, 140, 150.

A. soleniformis.
T. A. P. S., (27) vol. vi, 1838, pp. 140, 144, 150; (79) vol. x, 1852, p. 293; Obs. Gen. Unio, (29) vol. ii, pp. 140, 144, 150; (83) p. 49.

A. solidula.
J. A. N. S., (220) vol. v, 1863, p. 396; Obs. Gen. Unio, (222) vol. x, p. 32.

A. Spixii.
T. A. P. S., (27) vol. vi, 1838, pp. 139, 150; Obs. Gen. Unio, (29) vol. ii, pp. 139, 150.

Anodonta spuria.
T. A. P. S., (27) vol. vi, 1838, p. Unio, (29) vol. ii, p. 137.

A. Strebelii.
J. A. N. S., (258) vol. vi, 1868, 135; Obs. Gen. Unio, (259) pl. lii, f. 135; P. A. N. S., (25 p. 150.

A. Stewartiana.
T. A. P. S., (20) vol. v, 1832, p. (27) vol. vi, 1836, p. 64; 1838, vol. x, 1852, p. 291; J. A. N. 1859, p. 231; Obs. Gen. Uni 159, pl. vi, f. 7; (29) vol. ii, (83) vol. v, p. 47; (170) vol.

A. subcrassa.
P. Zoöl. Soc. Lond., (60) vol 198; J. A. N. S., vol. iv, 1 xxxiii, f. 115; Obs. Gen. U vii, p. 54, pl. xxxiii, f. 115.

A. subcylindracea.
T. A. P. S., (27) vol. vi, 18 149, pl. xxiv, f. 117; J. A. v, 1863, p. 449; Obs. Gen. U pp. 106, 140, 149, pl. xxiv, f. x, p. 85.

A. suborbiculata.
T. A. P. S., (27) vol. vi, 1838, p vol. viii, 1841, p. 241; Obs. vol. ii, pp. 139, 149; (44) vol.

A. subvexa.
T. A. P. S., (27) vol. vi, 1838, pp. Gen. Unio, (29) vol. ii, pp. 1

A. sulcata.
T. A. P. S., (20) vol. v, 1833, p. 9 1838, p. 137; Obs. Gen. Uni 205; (29) vol. ii, p. 137.

A. Susannæ.
T. A. P. S., (27) vol. vi, 1838, p. Unio, (29) vol. ii, p. 139.

A. Tæraii.
T. A. P. S., (27) vol. vi, 1838, p. Unio (29) vol. ii, p. 140.

A. Tawaii.
T. A. P. S., (27) vol. vi, 1838, p. Unio, (29) vol. ii, p. 150.

A. tenebricosa.
T. A. P. S., (20) vol. v, 1833, pp. f. 36; (27) vol. vi, 1836, pp. A. N. S., (220) vol. v, 186 Gen. Unio, (21) vol. i, pp. 1 f. 36; (29) vol. ii, pp. 45, 140, x, p. 13.

A. tenuis.
T. A. P. S., (27) vol. vi, 1838, p Lond., (60) vol. xviii, 1850, S., (168) vol. iv, 1859, p. 23 116; Obs. Gen. Unio, (29) (170) vol. vii, p. 55, pl. xxxii N. S., (250) vol. xx, 1868, p. 1

A. teres.
T. A. P. S., (27) vol. vi, 1838, p. Unio, (29) vol. ii, p. 138.

Anodonta bicorna.

T. A. P. S., (55) vol. x, 1845, p. 82, pl. viii, f. 25; (79) vol. x, 1852, pp. 287, 289; Obs. Gen. Unio, (56) vol. iv, p. 82, pl. viii, f. 25; (83) vol. v, pp. 43, 45; P. A. N. S., (53) vol. iv, 1845, p. 165; (101) vol. vii, 1854, p. 246.

Tazewellensis.

P. A. N. S., (151) vol. xi, 1859, p. 113; J. A. N. S., (189) vol. iv, 1860, p. 366, pl. 63, f. 191; Obs. Gen. Unio, (205) vol. viii, p. 48, pl. 63, f. 191.

tortilis.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 291, pl. xxvii, f. 54; J. A. N. S., (123) vol. iii, 1857, p. 313; Obs. Gen. Unio, (83) vol. v, p. 47, pl. xxvii, f. 54; (150) vol. vi, p. 33.

Trautweiniana.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 287, pl. xxvi, f. 48; J. A. N. S., (189) vol. iv, 1860, p. 367; Obs. Gen. Unio, (83) vol. v, p. 43, pl. xxvi, f. 48; (205) vol. viii, p. 49.

triangulata.

P. A. N. S., (109) 1856, p. 81; J. A. N. S., (243) vol. vi, 1866, p. 155; Obs. Gen. Unio, (244) vol. xi, p. 111.

trigona.

T. A. P. S., (27) vol. vi, 1838, pp. 138, 150; Obs. Gen. Unio, (29) vol. ii, pp. 138, 150.

trapezia.

T. A. P. S., (12) vol. iii, 1829, p. 443; (20) vol. v, 1833, p. 93; (27) vol. vi, 1838, pp. 139, 150; (79) vol. lxxix, 1852, p. 287; J. A. N. S., (220) vol. v, 1863, pp. 377, 393, 394, 397; Obs. Gen. Unio, (21) vol. i, pp. 57, 205; (29) vol. ii, pp. 139, 150; (83) vol. v, p. 43; (222) vol. vol. x, pp. 13, 29, 30, 33.

Tryonii.

J. A. N. S., (242) vol. vi, 1866, p. 28; Obs. Gen. Unio, (244) vol. xi, p. 32, pl. x, f. 27; P. A. N. S., (206) vol. xiv, p. 169.

tuberculata.

T. A. P. S., (27) vol. vi, 1838, p. 136; Obs. Gen. Unio, (29) vol. ii, p. 136.

undulata.

T. A. P. S., (9) vol. iii, 1827, p. 262; (12) vol. iii, 1829, p. 425; (20) vol. v, 1833, p. 93; (27) vol. vi, 1836, pp. 51, 52, 54, 55, 56; 1838, pp. 138, 150; (43) vol. viii, p. 225; J. A. N. S., (147) vol. iv, 1858, pp. 46, 50, pl. v, f. 38; (203) vol. v, 1861, p. 167; (213) vol. v, 1862, p. 216; (221) vol. v, 1863, pp. 453, 450; Obs. Gen. Unio, (21) vol. i, pp. 4, 39, 205; (29) vol. ii, pp. 51, 52, 54, 55, 56, 138, 150; (44) vol. iii, p. 63; (150) vol. vi, pp. 46, 50, pl. v, f. 38; (205) vol. viii, p. 111; (215) vol. ix, p. 38; (222) vol. x, pp. 86, 89; P. A. N. S., (118) vol. ix, 1857, p. 19.

unilopis.

T. A. P. S., (20) vol. v, 1833, p. 93; (27) vol. vi. 1838, pp. 138, 150; Obs. Gen. Unio, (21) vol. i, p. 205; (29) vol. ii, pp. 138, 150.

Anodonta Uruguayensis.

P. A. N. S., (176) vol. xii, 1860, p. 92; J. A. N. S., (220) vol. v, 1863, p. 393, pl. xlviii, f. 302; Obs. Gen. Unio, (222) vol. x, p. 29, pl. xlviii, f. 302.

A. variabilis.

T. A. P. S., (27) vol. vi, 1838, p. 137; Obs. Gen. Unio, (29) vol. ii, p. 137.

A. ventricosa.

T. A. P. S., (27) vol. vi, 1838, p. 137; Obs. Gen. Unio, (29) vol. ii, p. 137.

A. virens.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 290, pl. xxviii, f. 53; Obs. Gen. Unio, (83) vol. v, p. 46, pl. xxviii, f. 53.

A. virgata.

T. A. P. S., (27) vol. vi, 1838, p. 138; Obs. Gen. Unio, (29) vol. ii, p. 138.

A. virgulata.

P. A. N. S., (123) vol. ix, 1857, p. 86; J. A. N. S., (213) vol. v, 1862, p. 213, pl. xxxiii, f. 282; Obs. Gen. Unio, (215) vol. ix, p. 35, pl. xxiii, f. 282.

A. Wahlamatensis.

T. A. P. S., (27) vol. vi, 1836, p. 78, pl. xx, f. 64, 1838, p. 137; J. A. N. S., (221) vol. v, 1863, p. 453; (243) vol. vi, 1866, p. 155; Obs. Gen. Unio, (29) vol. ii, pp. 78, 137, 149, pl. xx, f. 64; (222) vol. x, p. 89; (244) vol. xi, p. 111; P. A. N. S., (109) vol. viii, 1856, p. 81.

A. Wardiana.

T. A. P. S., (27) vol. vi, 1836, p. 46, pl. xiv, f. 42; 1838, pp. 138, 149; (43) vol. viii, 1841, p. 231; Obs. Gen. Unio, (29) vol. ii, pp. 46, 138, 149, pl. xiv, f. 42; (44) vol. iii, p. 69; P. A. N. S., (101) vol. vii, 1854, p. 241.

A. Wheatleyi.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 287, pl. xxvi, f. 49; J. A. N. S., (220) vol. v, 1863, pp. 391, 396; Obs. Gen. Unio, (83) vol. v, p. 43, pl. xxvi, f. 49; (222) vol. x, pp. 27, 32.

A. Williamsii.

J. A. N. S., (242) vol. vi, 1866, pp. 27, 29; pl. x, f. 26; Obs. Gen. Unio, (244) vol. xi, pp. 31, 33, pl. x, f. 26; P. A. N. S., (206) vol. xiv, 1862, p. 169.

A. Woodiana.

T. A. P. S., (27) vol. vi, 1838, pp. 137, 149; Obs. Gen. Unio., (29) vol. ii, pp. 137, 149.

A. Wymanii.

P. A. N. S., (176) vol. xii, 1860, p. 91; J. A. N. S., (220) vol. v, 1863, pp. 390, 394; pl. xliv, f. 294; Obs. Gen. Unio., (222) vol. x, pp. 26, 30; pl. xliv, f. 294; P. A. N. S., (179) vol. xii, 1860, p. 97.

A. Youkanensis.

J. A. N. S., (257) vol. vi, 1868, p. 287, pl. xi, f. 99; Obs. Gen. Unio, (259) vol. xii, p. 47, pl. xl, f. 99; P. A. N. S., (247) vol. xix, 1867, p. 81.

Anodontites anatina.

T. A. P. S., (27) vol. vi, 1838, p. 138; Obs. Gen. Unio, (29) vol. ii, p. 138.

[illegible]us arneus.
T. A. P. S., (27) vol. vi, 1836, p. 66, pl. xxiii, f. 111; Obs. Gen. Unio, (29) vol. ii, p. 66, pl. xxiii, f. 111.

[illegible]ncellatus.
P. A. N. S., (214) vol. v, 1862, p. 233; Obs. Gen. Unio, (215) vol. ix, 1862, p. 255.

[illegible]ocostus.
T. A. P. S., (27) vol. vi, 1836, p. 86, pl. xxiii, f. 108; Obs. Gen. Unio, (29) vol. ii, p. 86, pl. xxiii, f. 108.

[illegible]ibbonius.
T. A. P. S., (27) vol. vi, 1836, p. 85, pl. xxiii, f. 99; Obs. Gen. Unio, (29) vol. ii, p. 85, pl. xxiii, f. 99.

[illegible]lantiformis.
T. A. P. S., (27) vol. vi, 1836, p. 83, pl. xxiii, f. 92; Obs. Gen. Unio, (29) vol. ii, p. 83, pl. xxiii, f. 92.

[illegible]racilis.
P. A. P. S., (31) vol. i, 1840, p. 173; T. A. P. S., (27) vol. vi, 1836, p. 85, pl. xxiii, f. 102; (38) vol. vii, 1841, pp. 456, 458, pl. xi, f. 6; Obs. Gen. Unio, (29) vol. ii, p. 85, pl. xxiii, f. 102.

[illegible]rmastomus.
T. A. P. S., (38) vol. vii, 1841, p. 457.

[illegible]ayensis.
P. A. P. S., (39) vol. ii, 1841, p. 31; T. A. P. S., (51) vol. ix, 1841, p. 2; Obs. Gen. Unio, (56) vol. iv, p. 2.

[illegible]ctorus.
T. A. P. S., (27) vol. vi, 1836, pp. 65, 67; Obs. Gen. Unio, (29) vol. ii, p. 65, pl. xxiii, f. 100.

[illegible] Liberianus.
P. A. P. S., (31) vol. i, 1840, p. 174; T. A. P. S., (38) vol. vii, 1841, p. 457, pl. xi, f. 4.

[illegible] monilatus.
T. A. P. S., (27) vol. vi, 1836, pp. 84, 86, pl. xxiii, f. 112; Obs. Gen. Unio, (29) vol. ii, p. 86, pl. xxiii, f. 112.

[illegible] octonus.
T. A. P. S., (51) vol. ix, 1841, p. 3; Obs. Gen. Unio, (56) vol. iv, p. 3.

[illegible] parvus.
T. A. P. S., (27) vol. vi, 1836, p. 84, pl. xxiii, f. 96; Obs. Gen. Unio, (29) vol. ii, p. 84, pl. xxiii, f. 96.

[illegible] Peklianus.
T. A. P. S., (27) vol. vi, 1836, p. 65, pl. xxiii, f. 105; Obs. Gen. Unio, (29) vol. ii, p. 65, pl. xxiii, f. 105.

[illegible] radiatus.
T. A. P. S., (38) vol. vii, 1841, p. 457.

[illegible] rubiginosus.
P. A. N. S., (31) vol. i, 1840, p. 173; T. A. P. S., (38) vol. vii, 1841, p. 455, pl. xi, f. 1.

[illegible] semicilatus.
(18) Con. Geol., 1833, p. 207.

[illegible] sirpanus.
P. A. P. S., (31) vol. i, 1840, p. 174; T. A. P. S., (38) vol. vii, 1841, p. 456, pl. xi, f. 3.

[illegible] virgo.
T. A. P. S., (27) vol. vi, 1836, p. 84, pl. xxiii, f. 97; Obs. Gen. Unio, (29) vol. ii, p. 84, pl. xxiii, f. 97.

Bulimus virido-striatus.
P. A. P. S., (31) vol. i, 1840, p. 174; T. A. P. S., (38) vol. vii, 1841, p. 455, pl. xi, f. 2.

B. Woodianus.
P. A. P. S., (31) vol. i, 1840, p. 173; T. A. P. S., (38) vol. vii, 1841, p. 457, pl. xi, f. 5.

BULLA.
(18) Con. Geol., 1833, p. 99.

B. constricta.
(18) Con. Geol., 1833, p. 98.

B. Dekayi.
(18) Con. Geol., 1833, p. 200, pl. vi, f. 215.

B. St. Hillairii.
(18) Con. Geol., 1833, pp. 98, 201, pl. iv, f. 78.

Byssomia petricoloides.
(18) Con. Geol., 1833, p. 48, pl. i, f. 16.

Byssanodonta Paranensis.
P. A. N. S., (115) vol. viii, 1856, p. 214.

CANCELLARIA.
(18) Con. Geol., 1833, p. 142.

C. babylonica.
(18) Con. Geol., 1833, p. 138, pl. v, f. 134.

C. costata.
(18) Con. Geol., 1833, p. 141, pl. v, f. 140.

C. elevata.
(18) Con. Geol., 1833, p. 141, pl. v, f. 139.

C. multiplicata.
(18) Con. Geol., 1833, p. 139, pl. v, f. 135.

C. parva.
(18) Con. Geol., 1833, p. 142, pl. v, f. 141.

C. plicata.
(18) Con. Geol., 1833, pp. 139, 140, pl. v, f. 136.

C. sculptura.
(18) Con. Geol., 1833, p. 140, pl. v, f. 137.

C. tessellata.
(18) Con. Geol., 1833, p. 140, pl. v, f. 138.

CARDITA.
P. A. P. S., (145) vol. x, 1858, p. 221.

C. planicosta.
(18) Con. Geol., 1833, p. 19.

Cardium cardissa.
T. A. P. S., (27) vol. vi, 1836, p. 72; Obs. Gen. Unio, (29) vol. ii, p. 72.

C. depressum.
T. A. P. S., (36) vol. vii, 1840, p. 259, pl. x, f. 20.

C. globosum.
T. A. P. S., (36) vol. vii, 1840, p. 259, pl. x, f. 20.

CAROCOLLA.
T. A. P. S., (51) vol. ix, 1841, p. 1; (82) vol. x, 1852, p. 304; Obs. Gen. Unio, (56) vol. iv, p. 1; (83) vol. v, p. 60.

C. bicolor.
T. A. P. S., (38) vol. vii, 1841, p. 461.

C. bifasciata.
P. A. P. S., (31) vol. i, 1840, p. 174; T. A. P. S., (38) vol. xii, 1841, p. 465, pl. xii, f. 18.

C. Cumberlandiana.
P. A. P. S., (35) vol. i, 1840, p. 289; T. A. P. S., (43) vol. viii, 1840, p. 229, pl. vi, f. 61; Obs. Gen. Unio, (44) vol. iii, p. 67, pl. vi, f. 61.

C. Edgariana.
P. A. P. S., (39) vol. ii, 1841, p. 31; T. A. P. S., (51) vol. ix, 1841, p. 2; (82) vol. x, 1852, p. 304; Obs. Gen. Unio, (56) vol. iv, p. 2; (83) vol. v, p. 60.

Carocolla helicoides.
T. A. P. S., (15) vol. iv, 1830, p. 103, pl. xv, f. 34, a. b. c.; Obs. Gen. Unio, (21) vol. i, p. 113, pl. xv, f. 34, a. b. c.

C. Hydiana.
T. A. P. S., (27) vol. vi, 1837, p. 98, pl. xxiii, f. 73; Obs. Gen. Unio, (29) vol. ii, p. 98, pl. xxiii, f. 73.

C. labyrinthus.
T. A. P. S., (27) vol. vi, 1837, p. 98; Obs. Gen. Unio, (29) vol. ii, p. 98.

C. spinosa.
T. A. P. S., (15) vol. iv, 1830, p. 104, pl. xv, f. 35, a. b. c.; (27) vol. vi, 1836, p. 69; (51) vol. ix, 1841, p. 2; (82) vol. x, 1852, p. 304; Obs. Gen. Unio, (21) vol. i, p. 114, pl. xv, f. 35, a. b. c.; (29) vol. ii, p. 69; (56) vol. iv, p. 2; (83) vol. v, p. 60.

CASTALIA.
T. A. P. S., (12) vol. iii, 1829, pp. 442, 443; (15) vol. iv, 1831, p. 107; (27) vol. vi, 1838, p. 109; Obs. Gen. Unio, (21) vol. i, pp. 56, 57; (15) p. 117; (29) vol. ii, p. 109.

C. ambigua.
T. A. P. S., (12) vol. iii, 1829, p. 443; (20) vol. v, 1833, p. 92; (27) vol. vi, 1838, p. 122; J. A. N. S., (220) vol. v, 1863, p. 377; Obs. Gen. Unio, (21) vol. i, p. 57; (20) p. 204; (29) vol. ii, p. 122; (222) vol. x, p. 13.

C. inflata.
T. A. P. S., (27) vol. vi, 1838, p. 122; Obs. Gen. Unio, (29) vol. ii, p. 122.

C. quadrilatera.
T. A. P. S., (27) vol. vi, 1838, p. 122; Obs. Gen. Unio, (29) vol. ii, p. 122.

CATILLUS.
(18) Con. Geol., 1833, p. 73.

Centemodon sulcatus.
P. A. N. S., (106) vol. viii, 1856, p. 78; (128) vol. ix, 1857, p. 149.

CERIPHASIA.
J. A. N. S., (214) vol. v, 1862, p. 269; Obs. Gen. Unio, (215) vol. ix, p. 91.

C. canaliculata.
J. A. N. S., (214) vol. v, 1862, p. 269; Obs. Gen. Unio, (215) vol. ix, p. 91.

C. sulcata.
J. A. N. S., (214) vol. v, 1862, p. 269; Obs. Gen. Unio, (215) vol. ix, p. 91.

CERITHIUM.
(18) Con. Geol., 1833, p. 132.

C. striatum.
(18) Con. Geol., 1833, p. 131, pl. iv, f. 122.

Chama plumbea.
J. A. N. S., (213) vol. v, 1862, p. 206; Obs. Gen. Unio, (215) vol. ix, p. 28.

C. tortuosa.
T. A. P. S., (36) vol. vii, 1840, p. 259, pl. x, f. 18.

Chelichnus Wymanianus.
P. A. N. S., (106) vol. viii, 1856, p. 78.

CHILINA.
J. A. N. S., (214) vol. v, 1862, p. 257; Obs. Gen. Unio, (215) vol. ix, p. 79.

CLATHRODON.
J. A. N. S., (133) vol. iii, 1857, p. 318; Obs. Gen. Unio, (150) vol. vi, p. 38.

Clepsysaurus Pennsylvanicus.
P. A. N. S., (106) vol. viii, 1856, p. 78; (12 ix, 1857, p. 149; (138) vol. x, 1858, p. 91

Cochlicopa rosea.
T. A. P. S., (20) vol. v, 1833, p. 85; Obs Unio, (21) vol. i, p. 197.

COLUMBA.
T. A. P. S., (20) vol. v, 1833, p. 78; (27) v 139; Obs. Gen. Unio, (21) vol. i, p. 19 vol. ii, p. 139.

Conus Claibornensis.
(18) Con. Geol., 1833, p. 186.

C. latus.
T. A. P. S., (36) vol. vii, 1840, p. 259, pl. x,

CORBULA.
(18) Con. Geol., 1833, p. 47; P. A. N. S vol. x, 1858, p. 221.

C. compressa.
(18) Con. Geol., 1833, p. 47, pl. i, f. 15.

C. elegans.
(18) Con. Geol., 1833, p. 46.

C. gibbosa.
(18) Con. Geol., 1833, p. 46, pl. i, f. 14.

C. Murchisonii.
(18) Con. Geol., 1833, pp. 46, 47, pl. i, f. 12.

C. revoluta.
(18) Con. Geol., 1833, p. 46.

CRASSINA.
(18) Con. Geol., 1833, p. 63.

Crassatella alta.
(18) Con. Geol., 1833, p. 23.

CREPIDULA.
(18) Con. Geol., 1833, p. 98.

C. cornu-arietes.
(18) Con. Geol., 1833, p. 97, pl. iii, f. 77.

C. costata.
(18) Con. Geol., 1833, p. 97.

CRISTARIA.
T. A. P. S., (12) vol. iii, 1829, p. 443; Obs Unio, (21) vol. i, p. 57.

C. tuberculata.
T. A. P. S., (12) vol. iii, 1829, p. 447; (27) 1838, p. 136; Obs. Gen. Unio, (21) vol. i (29) vol. ii, p. 136.

Cucullea dubia.
T. A. P. S., (36) vol. vii, 1840, p. 259, pl. x,

C. gigantea.
(18) Con. Geol., 1833, p. 19.

CYCLAS.
T. A. P. S., (20) vol. v, 1832, p. 25; Obs. Unio, (21) vol. i, p. 137.

Cyclostoma Cincinnatiensis.
P. A. P. S., (35) vol. 1, 1840, p. 289; T. A. (43) vol. viii, 1840, p. 229, pl. vi, f. 62; Gen. Unio, (44) vol. iii, p. 67, pl. vi, f. 6

C. Jamaicensis.
T. A. P. S., (20) vol. v, 1833, p. 34; Obs. Unio, (21) vol. i, p. 196.

C. maculata.
T. A. P. S., vol. vi, 1836, p. 68, pl. xxiii, Obs. Gen. Unio, (29) vol. ii, p. 68, pl. x f. 87.

C. Popayana.
T. A. P. S., (27) vol. vi, 1836, p. 94, pl. xxiii, Obs. Gen. Unio, (29) vol. ii, p. 94, pl. x f. 76.

ma striata.
A. P. S., (20) vol. v, 1833, p. 84, pl. xix, f. 77; (27) vol. vi, 1836, p. 94; Obs. Gen. Unio, (21) vol. i, p. 196, pl. xix, f. 77; (29) vol. ii, p. 94.
olor.
. N. S., (243) vol. vi, 1866, p. 116; Obs. Gen. Unio, (244) vol. xi, p. 73.
iana.
. P. S., (31) vol. i, 1840, p. 174; T. A. P. S., (38) vol. vii, 1841, p. 465, pl. xii, f. 19.
.
. P. S., (20) vol. v, 1834, p. 111; Obs. Gen. Unio, (21) vol. i, p. 223; (150) vol. vi, p. 38; J. A. N. S., (133) vol. iii, 1857, p. 318.
nsis.
. P. S., (20) vol. v, 1834, p. 108, pl. xvii, f. 52; Obs. Gen. Unio, (21) vol. i, p. 220, pl. xvii, f. 52.
a.
. P. S., (20) vol. v, 1834, pp. 109, 110; Obs. Gen. Unio, (21) vol. i, pp. 221, 222.
idata.
. P. S., (20) vol. v, 1834, pp. 107, 108, 110, pl. xvii, f. 51; Obs. Gen. Unio, (21) vol. i, pp. 219, 220, 221, pl. xvii, f. 51.
ida.
. P. S., (20) vol. v, 1834, p. 109, pl. xviii, f. 53; Obs. Gen. Unio, (21) vol. i, p. 221, pl. xviii, f. 53.
gata.
. N. S., (220) vol. v, 1863, p. 377; Obs. Gen. Unio, (222) vol. x, p. 13.
tiana.
. P. S., (20) vol. v, 1834, pp. 109, 110, pl. xviii, f. 55; Obs. Gen. Unio, (21) vol. i, p. 222, pl. xviii, f. 55.
anica.
. P. S., (20) vol. v, 1834, pp. 108, 109; Obs. Gen. Unio, (21) vol. i, pp. 220, 221.
REA.
) Con. Geol., 1833, pp. 60, 68.
is.
) Con. Geol., 1833, p. 66, pl. ii, f. 41.
exa.
) Con. Geol., 1833, p. 21.
ne.
A. P. S., (27) vol. vi, 1836, p. 58; Obs. Gen. Unio, (29) vol. ii, p. 58.
bosa.
8) Con. Geol., 1833, pp. 65, 66, pl. ii, f. 40.
rdii.
18) Con. Geol., 1833, p. 66, pl. ii, f. 42.
inima.
18) Con. Geol., 1833, p. 68, pl. ii, f. 45.
iberassa.
(18) Con. Geol., 1833, p. 67, pl. ii, f. 43.
igonata.
(18) Con. Geol., 1833, pp. 67, 68, pl. ii, f. 44.
TALIS.
T. A. P. S., (27) vol. vi, 1838, p. 134; Obs. Gen. Unio, (29) vol. ii, p. 134.
ITALIUM.
P. A. N. S., (145) vol. x, 1858, p. 221.
lternatum.
(18) Con. Geol., 1833, p. 34, pl. i, f. 2.

Dentalium attenuatum.
(18) Con. Geol., 1833, p. 36.
D. dentalis.
(18) Con. Geol., 1833, p. 35.
D. turritum.
(18) Con. Geol., 1833, p. 35, pl. i, f. 3.
DELPHINULA.
(18) Con. Geol., 1833, p. 118.
D. depressa.
(18) Con. Geol., 1833, p. 118, pl. iv, f. 105.
D. plana.
(18) Con. Geol., 1833, p. 117, pl. iv, f. 104.
Didelphis Bucklandi.
(18) Con. Geol., 1833, p. 12.
Diplasma marginatæ.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.
Diplasma similis.
J. A. P. S., (27) vol. vi. 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.
D. striata.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.
D. vitrea.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.
Diplodon ellipticum.
T. A. P. S., (27) vol. vi, 1838, p. 122; Obs. Gen. Unio, (29) vol. ii, p. 122.
D. furcatum.
T. A. P. S., (27) vol. vi, 1838, p. 121; Obs. Gen. Unio, (29) vol. ii, p. 121.
D. rhombeum.
T. A. P. S., (27) vol. vi, 1838, p. 133; Obs. Gen. Unio, (29) vol. ii, p. 133.
DIPSAS.
T. A. P. S., (12) vol. iii, 1829, pp. 442, 443; (27) vol. vi, 1838, pp. 114, 117, 118, 136, 149; P. Z. S. L., (60) vol. xviii, 1850, p. 197; J. A. N. S., (168) vol. iv, 1859, pp. 240, 241; Obs. Gen. Unio, (21) vol. i, pp. 56, 57; (29) vol. ii, pp. 114, 117, 118, 136, 149; (170) vol. vii, pp. 58, 59.
D. discoideus.
T. A. P. S., (27) vol. vi, 1838, pp. 136, 149; Obs. Gen. Unio, (29) vol. ii, pp. 136, 149.
D. plicatus.
T. A. P. S., (12) vol. iii, 1829, p. 447; (15) vol. iv, 1830, p. 68; (27) vol. vi, 1836, pp. 136, 149; 1838, p. 118; Obs. Gen. Unio, (21) vol. i, pp. 61, 78; (29) vol. ii, pp. 118, 136, 149; (150) vol. vi, p. 40; (170) vol. vii, p. 59; J. A. N. S., (133) vol. iii, 1857, p. 320; (168) vol. iv, 1859, p. 241.
ECHINUS.
P. A. N. S., (145) vol. x, 1858, p. 221.
EGERIA.
(18) Con. Geol., 1833, p. 49.
E. Bucklandii.
(18) Con. Geol., 1833, pp. 52, 53, pl. i, f. 21.
E. inflata.
(18) Con. Geol., 1833, pp. 50, 51, pl. i, f. 18.
E. nana.
(18) Con. Geol., 1833, pp. 50, 55, pl. i, f. 26.
E. nitens.
(18) Con. Geol., 1833, p. 51, pl. i, f. 19.

Egeria ovalis.
(18) Con. Geol., 1833, p. 54, pl. i, f. 24.
E. plana.
(18) Con. Geol., 1833, p. 54, pl. i, f. 25.
E. rotunda.
(18) Con. Geol., 1833, pp. 50, 55, pl. i, f. 17.
E. subtrigonia.
(18) Con. Geol., 1833, p. 53, pl. i, f. 22.
E. triangulata.
(18) Con. Geol., 1833, pp. 51, 52, pl. i, f. 20.
E. veneriformis.
(18) Con. Geol., 1833, p. 53, pl. i, f. 23.
ELIMIA.
J. A. N. S., (214) vol. v, 1862, p. 218; Obs. Gen. Unio, (215) vol. ix, p. 40.
ERYCINA.
(18) Con. Geol., 1833, p. 43.
E. cardioides.
(18) Con. Geol., 1833, p. 43.
ESCHARA.
P. A. N. S., (145) vol. x, 1858, p. 221.
EUOMPHALUS.
P. A. N. S., (182) vol. xii, 1860, p. 186; J. A. N. S., (214) vol. v, 1862, p. 245; Obs. Gen. Unio, (215) vol. ix, p. 67.
EURYCŒLON.
J. A. N. S., (243) vol. vi, 1866, p. 150; Obs. Gen. Unio, (244) vol. xi, p. 106.
E. Anthonyi.
J. A. N. S., (243) vol. vi, 1860, p. 150; Obs. Gen. Unio, (244) vol. xi, p. 106.
E. basalis.
J. A. N. S., (243) vol. vi, 1866, p. 150; Obs. Gen. Unio, (244) vol. xi, p. 106.
E. midas.
J. A. N. S., (243) vol. vi, 1866, p. 150; Obs. Gen. Unio, (244) vol. xi, p. 106.
E. tintinnabulum.
J. A. N. S., (243) vol. vi, 1866, p. 150; Obs. Gen. Unio, (244) vol. xi, p. 106.
E. turbinata.
J. A. N. S., (243) vol. vi, 1866, p. 150; Obs. Gen. Unio, (244) vol. xi, p. 106.
E. umbonatum.
J. A. N. S., (243) vol. vi, 1866, p. 150, pl. xxiii, f. 64; Obs. Gen. Unio, (244) vol. xi, p. 106, pl. xxiii, f. 64.
EURYNEA.
J. A. N. S., (221) vol. v, 1863, p. 456; Obs. Gen. Unio, (222) vol. x, p. 92.
E. Fisherianus.
J. A. N. S., (221) vol. v, 1863, p. 456; Obs. Gen. Unio, (222) vol. x, p. 92.
E. nasutus.
J. A. N. S., (222) vol. v, 1863, p. 456; Obs. Gen. Unio, (222) vol. x, p. 92.
EXOGYRA.
P. A. N. S., (145) vol. x, 1858, pp. 218, 221.
FASCIOLARIA.
(18) Con. Geol., 1833, p. 144.
F. elevata.
(18) Con. Geol., 1833, p. 143, pl. v, f. 143.
F. plicata.
(18) Con. Geol., 1833, p. 143, pl. v, f. 142.
FISSURELLA.
(18) Con. Geol., 1833, p. 95.
Fissurella Claibornensis.
(18) Con. Geol., 1833, p. 94, pl. iii, f. 74.
F. græca.
(18) Con. Geol., 1833, p. 94.
FUSUS.
(18) Con. Geol., 1833, p. 153; J. A. N. S. (214) vol. v, 1862, p. 346; Obs. Gen. Unio, (215) vol. ix, p. 168.
F. acutus.
(18) Con. Geol., 1833, p. 150, pl. v, f. 153.
F. bicarinatus.
(18) Con. Geol., 1833, p. 146, pl. v, f. 147.
F. Claibornensis.
(18) Con. Geol., 1833, p. 19.
F. Conybearii.
(18) Con. Geol., 1833, p. 150, pl. v, f. 154.
F. crebissimus.
(18) Con. Geol., 1833, p. 147, pl. v, f. 149.
F. decussatus.
(18) Con. Geol., 1833, p. 145, pl. v, f. 146.
F. Delabechii.
(18) Con. Geol., 1833, p. 148, pl. v, f. 151.
F. errans.
(18) Con. Geol., 1833, p. 153.
F. ficulneus.
(18) Con. Geol., 1833, p. 151.
F. Fittonii.
(18) Con. Geol., 1833, p. 150, pl. v, f. 156.
F. fluvialis.
T. A. P. S., (16) 1831, p. 123; Obs. Gen. Unio, (21) vol. i, p. 133.
F. fluviatilis.
T. A. P. S., (20) vol. v, 1834, p. 112; (51) vol. ix, 1841, p. 17; J. A. N. S., (214) vol. v, 1862, p. 345; P. A. N. S., (201) vol. xiii, 1861, p. 390; Obs. Gen Unio., (21) vol. i, p. 224; (56) vol. iv, p. 17; (215) vol. ix, p. 167.
F. fusiformis.
J. A. N. S., (214) vol. v, 1862, p. 345; Obs. Gen. Unio, (215) vol. ix, p. 167.
F. longævus.
(18) Con. Geol., 1833, p. 19.
F. magnocostatus.
(18) Con. Geol., 1833, p. 147, pl. v, f. 150.
F. minax.
(18) Con. Geol., 1833, p. 153.
F. minor.
(18) Con. Geol., 1833, pp. 151, 152, pl. v, f. 158.
F. minutus.
(18) Con. Geol., 1833, p. 215.
F. Mortonii.
(18) Con. Geol., 1833, p. 145, pl. v, f. 145.
F. nanus.
(18) Con. Geol., 1833, p. 150, pl. v, f. 155.
F. ornatus.
(18) Con. Geol., 1833, p. 148, pl. v, f. 152.
F. parvus.
(18) Con. Geol., 1833, p. 151, pl. v, f. 157.
F. pulcher.
(18) Con. Geol., 1833, p. 144, pl. v, f. 144.
F. pumilus.
(18) Con. Geol., 1833, p. 215, pl. vi, f. 226.
F. rusticus.
(18) Con. Geol., 1833, p. 153.
F. Taitii.
(18) Con. Geol., 1833, p. 152, pl. v, f. 159.

p. 146, pl. v, f. 148.

v, 1862, pp. 217, 218; (243) 50; Obs. Gen. Unio, (215) (244) vol. xi, p. 106.

r, 1862, p. 323, pl. xxxviii, Unio, (215) vol. ix, p. 145,

v, 1862, p. 323; Obs. Gen. , p. 145.

v, 1862, p. 321; Obs. Gen. , p. 143.

ri, 1866, p. 137; Obs. Gen. p. 93.

. v, 1862, pp. 223, 240, pl. Gen. Unio, (215) vol. ix, v, f. 41.

. v, 1862, pp. 232, 296, pl. vol. vi, 1866, p. 130; Obs. vol. ix, pp. 54, 118, pl.) vol. xi, p. 86.

vi, 1866, pp. 140, 141, pl. Gen. Unio, (244) vol. xi, , f. 49.

r, 1862, p. 323, pl. xxxviii, Unio, (215) vol. ix, p. 145,

, 1862, p. 303, pl. xxxvii, f. Unio, (215) vol. ix, p. 125,

ri, 1868, p. 329, pl. liv, f. 4; 259) vol. xii, p. 89, pl. liv,

ri, 1866, p. 136, pl. xxiii, f. nio, (244) vol. xi, p. 92, pl.

v, 1862, p. 316; Obs. Gen. , p. 138.

r, 1862, p. 308, pl. xxxvii, Unio, (215) vol. ix, p. 130,

r, 1862, pp. 242, 312; Obs. vol. ix, pp. 64, 134.

ii, 1874, p. 62; Obs. Gen. ii, p. 66, pl. xxi, f. 18.

v, 1862, p. 317, pl. xxxvii, . Unio, (215) vol. ix, p. 164.

Goniobasis Barrattii.
J. A. N. S., (214) vol. v, 1862, p. 335, pl. xxxviii, f. 196; Obs. Gen. Unio, (215) vol. ix, p. 157, pl. xxxviii, f. 196.

G. basalis.
J. A. N. S., (214) vol. v, 1862, pp. 233, 313, 329; (243) vol. vi, 1866, p. 150; Obs. Gen. Unio, (215) vol. ix, pp. 55, 135, 151; (244) vol. xi, p. 55.

G. bellula.
J. A. N. S., (214) vol. v, 1862, pp. 221, 222, 228, 237, 344, pl. xxxiv, f. 35; Obs. Gen. Unio, (215) vol. ix, pp. 43, 44, 50, 59, 166, pl. xxxiv, f. 35.

G. bullula.
J. A. N. S., (214) vol. v, 1862, pp. 221, 222, pl. xxxiv, f. 5; Obs. Gen. Unio, (215) vol. ix, pp. 43, 44, pl. xxxiv, f. 5.

G. Bentoniensis.
J. A. N. S., (214) vol. v, 1862, p. 336, pl. xxxviii, f. 198; Obs. Gen. Unio, (215) vol. ix, p. 158, pl. xxxviii, f. 198.

G. bicincta.
J. A. N. S., (214) vol. v, 1862, p. 244; Obs. Gen. Unio, (215) vol. ix, p. 66.

G. bifasciata.
J. A. N. S., (258) vol. vi, 1868, p. 331, pl. liv, f. 7; Obs. Gen. Unio, (259) vol. xii, p. 91, pl. liv, f. 7.

G. Binneyana.
J. A. N. S., (214) vol. v, 1862, p. 310, pl. xxxvii, f. 152; Obs. Gen. Unio., (215) vol. ix, p. 132, pl. xxxvii, f. 152.

G. blanda.
J. A. N. S., (214) vol. v, 1862, p. 242, pl. xxxv, f. 44, (243) vol. vi, 1866, p. 137; Obs. Gen. Unio, (215) vol. ix, pp. 64, 93, pl. xxxv, f. 44.

G. Boykiniana.
J. A. N. S., (214) vol. v, 1862, pp. 336, 340; (243) vol. vi, 1866, pp. 140, 141; Obs. Gen. Unio, (215) vol. ix, pp. 158, 162; (244) vol. xi, pp. 96, 97.

G. brevis.
J. A. N. S., (214) vol. v, 1862, p. 339; Obs. Gen. Unio, (215) vol. ix, p. 161.

G. Bridgesiana.
J. A. N. S., (214) vol. v, 1862, p. 305, pl. xxxvii, f. 142; Obs. Gen. Unio, (215) vol. ix, p. 127, pl. xxxvii, f. 142.

G. Brumbyi.
J. A. N. S., (214) vol. v, 1862, p. 296, pl. xxxvii, f. 127; Obs. Gen. Unio, (215) vol. ix, p. 118, pl. xxxvii, f. 127.

G. cadus.
J. A. N. S., (214) vol. v, 1862, p. 345, pl. xxxviii, f. 211; Obs. Gen. Unio, (215) vol. ix, p. 167, pl. xxxviii, f. 211.

G. Cahawbensis.
J. A. N. S., (214) vol. v, 1862, p. 223, pl. xxxiv, f. 8; Obs. Gen. Unio, (215) vol. ix, p. 45, pl. xxxiv, f. 8.

G. caliginosa.
J. A. N. S., (214) vol. v, 1862, p. 343; Obs. Gen. Unio, (215) vol. ix, p. 165.

G. calculoides.
J. A. N. S., (214) vol. v, 1862, p. 238, pl. xxxiv, f. 38; Obs. Gen. Unio, (215) vol. ix, p. 60, pl. xxxiv, f. 38.

[illegible]

Goniobasis difficilis.
J. A. N. S., (214) vol. v, 1862, p. 317, pl. xxxvii, f. 163; Obs. Gen. Unio, (215) vol. ix, p. 139, pl. xxxvii, f. 163.

G. Doolyensis.
J. A. N. S., (214) vol. v, 1862, pp. 315, 322, pl. xxxvii, f. 159; Obs. Gen. Unio, (215) vol. ix, pp. 137, 144, pl. xxxvii, f. 159.

G. Downieana.
J. A. N. S., (214) vol. v, 1862, p. 341, pl. xxxviii, f. 206; Obs. Gen. Unio, (215) vol. ix, p. 163, pl. xxxviii, f. 206.

G. Dratonii.
J. A. N. S., (214) vol. v, 1862, pp. 300, 318, pl. xxxvii, f. 134; Obs. Gen. Unio, (215) vol. ix, pp. 122, 140, pl. xxxvii, f. 134.

G. dubiosa.
J. A. N. S., (214) vol. v, 1862, pp. 277, 299; Obs. Gen. Unio, (215) vol. ix, pp. 90, 121.

G. Duttonii.
J. A. N. S., (214) vol. v, 1862, p. 314, pl. xxxvii, f. 158; Obs. Gen. Unio, (215) vol. ix, p. 136, pl. xxxvii, f. 158.

G. ebenum.
J. A. N. S., (214) vol. v, 1862, p. 225; Obs. Gen. Unio, (215) vol. ix, p. 47.

G. Edgariana.
J. A. N. S., (214) vol. v, 1862, p. 321; Obs. Gen. Unio, (215) vol. ix, pp. 140, 143.

G. data.
J. A. N. S., (243) vol. vi, 1866, p. 131; Obs. Gen. Unio, (244) vol. xi, p. 87.

G. Elliottii.
J. A. N. S., (214) vol. v, 1862, p. 338, pl. xxxviii, f. 201; Obs. Gen. Unio, (215) vol. ix, p. 160, pl. xxxviii, f. 201.

G. ellipsoides.
J. A. N. S., (214) vol. v, 1862, p. 234, pl. xxxiv, f. 31; Obs. Gen. Unio, (215) vol. ix, p. 56, pl. xxxiv, f. 31.

G. elliptica.
J. A. N. S., (214) vol. v, 1862, pp. 225, 312, pl. xxxiv, f. 13; Obs. Gen. Unio, (215) vol. ix, pp. 47, 134, pl. xxxiv, f. 13.

G. Emeryensis.
J. A. N. S., (243) vol. vi, 1866, p. 137, pl. xxiii, f. 43; Obs. Gen. Unio, (244) vol. xi, p. 93, pl. xxiii, f. 43.

G. Estabrookii.
J. A. N. S., (214) vol. v, 1862, p. 298, pl. xxxvii, f. 131; Obs. Gen. Unio, (215) vol. ix, p. 120, pl. xxxvii, f. 131.

G. Etowahensis.
J. A. N. S., (214) vol. v, 1862. p. 299, pl. xxxvii, f. 133; Obs. Gen. Unio, (215) vol. ix, p. 121, pl. xxxvii, f. 133.

G. fabalis.
J. A. N. S., (214) vol. v, 1862, p. 311, pl. xxxvii, f. 154; Obs. Gen. Unio, (215) vol. ix, p. 133, pl. xxxvii, f. 154.

G. fallax.
J. A. N. S., (214) vol. v, 1862, pp. 231, 240, pl. xxxiv, f. 24; Obs. Gen. Unio, (215) vol. ix, pp. 53, 62, pl. xxxiv, f. 24.

Goniobasis fascinans.
J. A. N. S., (214) vol. v, 1862, pp. 227, 229, pl. xxxiv, f. 20; Obs. Gen. Unio, (215) vol. ix, pp. 49, 51, pl. xxxiv, f. 20.

G. flava.
J. A. N. S., (214) vol. v, 1862, p. 303, pl. xxxvii, f. 139; Obs. Gen. Unio, (215) vol. ix, p. 125, pl. xxxvii, f. 139.

G. flavescens.
J. A. N. S., (214) vol. v, 1862, p. 339, pl. xxxviii, f. 202; Obs. Gen. Unio, (215) vol. ix, p. 161, pl. xxxviii, f. 202.

G. fraterna.
J. A. N. S., (243) vol. vi, 1866, p. 139, pl. xxiii, f. 46; Obs. Gen. Unio, vol. xi, p. 95, pl. xxiii, f. 46.

G. fumea.
J. A. N. S., (214) vol. v, 1862, p. 222, pl. xxxiv, f. 6; Obs. Gen. Unio, (215) vol. ix, p. 44, pl. xxxiv, f. 6.

G. fusiformis.
J. A. N. S., (214) vol. v, 1862, pp. 308, 311; Obs. Gen. Unio, (215) vol. ix, pp. 130, 133.

G. Gabbiana.
J. A. N. S., (214) vol. v, 1862, p. 364, pl. xxxvii, f. 141; Obs. Gen. Unio, (215) vol. ix, p. 126, pl. xxxvii, f. 141.

G. Georgina.
J. A. N. S., (214) vol. v, 1862, p. 308, pl. xxxvii, f. 149, (243) vol. vi, 1866, p. 135; Obs. Gen. Unio, (215) vol. ix, p. 130, pl. xxxvii, f. 149; (244) vol. xi, p. 91.

G. Gerhardtii.
J. A. N. S., (214) vol. v, 1862, pp. 330, 331, pl. xxxviii, f. 187; Obs. Gen. Unio, (215) vol. ix, pp. 152, 153, pl. xxxviii, f. 187.

G. germana.
J. A. N. S., (243) vol. vi, 1866, p. 153; Obs. Gen. Unio, (244) vol. xi, p. 109.

G. Gesnerii.
J. A. N. S., (258) vol. vi, 1868, p. 330, pl. liv, f. 5; Obs. Gen. Unio, (259) vol. xii, p. 90, pl. liv, f. 5.

G. gibberosa.
J. A. N. S., (214) vol. v, 1862, p. 312, pl. xxxvii, f. 155; Obs. Gen. Unio, (215) vol. ix, p. 134, pl. xxxvii, f. 155.

G. glandaria.
J. A. N. S., (214) vol. v, 1862, p. 226, pl. xxxiv, f. 14; Obs. Gen. Unio, (215) vol. ix, p. 48, pl. xxxiv, f. 14.

G. glabra.
J. A. N. S., (243) vol. vi, 1866, p. 134; Obs. Gen. Unio, (244) vol. xi, p. 90.

G. Gouldiana.
J. A. N. S., (258) vol. vi, 1868, p. 332; pl. liv, f. 9; Obs. Gen. Unio, (259) vol. xii, p. 92, pl. liv, f. 9.

G. gracilior.
J. A. N. S., (214) vol. v, 1862, pp. 230, 300; Obs. Gen. Unio, (215) vol. ix, pp. 52, 122.

G. gracilis.
J. A. N. S., (214) vol. v, 1862, pp. 303, 311; Obs. Gen. Unio, (215) vol. ix, pp. 125, 133.

G. catenaria.
J. A. N. S., (214) vol. v, 186
Gen. Unio, (215) vol. ix, p.
G. cerea.
J. A. N. S., (214) vol. v, 186
xxxviii, f. 171; Obs. G
ix, pp. 143, 144, pl. xxx
G. Christyi.
J. A. N. S., (214) vol. v, 1
f. 185; (243) vol. vi,
Unio. (215) vol. ix,
185; (244) vol. xi,
G. cinerea.
J. A. N. S., (214) vol.
Unio, (215) vol.
G. cinerella.
J. A. N. S., (214) vo
f. 184; Obs. G
pl. xxxviii, f.
G. clathrata.
J. A. N. S., (258
Obs. Gen.
f. 8.
G. clausa.
J. A. N. S.,
xxxiv, f
pp. 50,
G. clavula.
J. A. N. S.
Obs.
f. 15.
G. cochlaria.
J. A. N
Ob
f.
pl

[illegible] 230, pl. xxxiv, [illegible] vol. ix, p. 52, pl. [illegible]

[illegible] pp. 313, 314, pl. [illegible] Unio, (215) vol. ix, [illegible] f. 136.

[illegible] p. 333, pl. xxxviii, [illegible] (215) vol. ix, p. 156, [illegible]

[illegible] 1862, p. 326, pl. xxxviii, [illegible] (215) vol. ix, p. 148, [illegible]

[illegible] v, 1862, pp. 224, 305, pl. [illegible] Gen. Unio, (215) vol. ix, [illegible] xxiv, f. 10.

[illegible] v, 1862, p. 233, pl. xxxiv, [illegible] vi, 1866, p. 150; Obs. Gen. [illegible] ix, p. 255, pl. xxxiv, f. 28; [illegible] p. 106.

[illegible] vol. vi, 1866, p. 135, pl. xxiii, [illegible] Unio, (244) vol. xi, p. 90, [illegible]

[illegible] vol. v, 1862, p. 277; Obs. Gen. [illegible] ol. ix, p. 99.

[illegible] vol. vi, 1868, p. 334, pl. liv, f. [illegible] n. Unio, (259) vol. xii, p. 94, pl. [illegible]

[illegible] 214) vol. v, 1862, p. 331, pl. xxxviii, [illegible] bs. Gen. Unio, (215) vol. ix, p. 153, [illegible] iii, f. 189.

[illegible], (214) vol. v, 1862, p. 226; Obs. Gen. [illegible] (215) vol. ix, p. 48.

[illegible] S., (214) vol. v, 1862, p. 337, pl. xxxviii, [illegible]; Obs. Gen. Unio, (215) vol. ix, p. 159, xxviii, f. 200.

[illegible]

[illegible] S., (214) vol. v, 1862, pp. 300, 318, pl. [illegible] ii, f. 135; Obs. Gen. Unio, (215) vol. [illegible] 122, 140, pl. xxxvii, f. 135.

[illegible]

[illegible] S., (214) vol. v, 1862, p. 307; (243) vol. [illegible] 866, p. 135; Obs. Gen. Unio, (215) vol. [illegible] 129; (244) vol. xi, p. 91.

[illegible]

[illegible] S., (214) vol. v, 1862, pp. 309, 310; (243) vi, 1866, p. 137; Obs. Gen. Unio, (215) ix, pp. 131, 132; (244) vol. xi, p. 93.

[illegible] S., (214) vol. v, 1862, pp. 300, 302, 334, [illegible] xxvii, f. 137; Obs. Gen. Unio, (215) ix, pp. 122, 124, 156, pl. xxxvii, f. 137.

[illegible] S., (214) vol. v, 1862, p. 304; Obs. Gen. [illegible], (215) vol. ix, p. 126.

Goniobasis nubila.
J. A. N. S., (214) vol. v, 1862. p. 225, pl. xxxiv, f. 33; Obs. Gen. Unio, (215) vol. ix, p. 57, pl. xxxiv, f. 33.

G. obtusa.
J. A. N. S., (243) vol. vi, 1866, p. 138; Obs. Gen. Unio, (244) vol. xi, p. 94.

G. Ocoeénsis.
J. A. N. S., (214) vol. v, 1862, p. 277; Obs. Gen. Unio, (215) vol. ix, p. 99.

G. Ohioensis.
J. A. N. S., (214) vol. v, 1862, pp. 306, 307, pl. xxxvii, f. 144; Obs. Gen. Unio, (215) vol. ix, pp. 128, 129, pl. xxxvii, f. 144.

G. olivella.
J. A. N. S., (214) vol. v, 1862, p. 327, pl. xxxviii, f. 182; Obs. Gen. Unio, (215) vol. ix, p. 149, pl. xxxviii, f. 182.

G. oppugnata.
J. A. N. S., (214) vol. v, 1862, p. 233; Obs. Gen. Unio, (215) vol. ix, p. 55.

G. orbicula.
J. A. N. S., (214) vol. v, 1862, p. 238, pl. xxxiv, f. 37; Obs. Gen. Unio, (215) vol. ix, p. 60, pl. xxxiv, f. 37.

G. ornata.
J. A. N. S., (258) vol. vi, 1868, p. 337, pl. lv, f. 18; Obs. Gen. Unio, (259) vol. xii, p. 97, pl. liv, f. 18.

G. ornatella.
J. A. N. S., (214) vol. v, 1862, pp. 326, 327, pl. xxxviii, f. 181; Obs. Gen. Unio, (215) vol. ix, pp. 148, 149, pl. xxxviii, f. 181.

G. osculata.
J. A. N. S., (214) vol. v, 1862, p. 296, pl. xxxvii, f. 126; Obs. Gen. Unio, (215) vol. ix, p. 118, pl. xxxvii, f. 126.

G. ovalis.
J. A. N. S., (214) vol. v, 1862, pp. 234, 239; Obs. Gen. Unio., (215) vol. ix, pp. 56, 61.

G. ovoidea.
J. A. N. S., (214) vol. v, 1862, p. 308; (243) vol. vi, 1866, p. 133; Obs. Gen. Unio, (215) vol. ix, p. 130; (244) vol. xi, p. 89.

G. parva.
J. A. N. S., (214) vol. v, 1862, p. 297, pl. xxxvii, f. 129; Obs. Gen. Unio, (215) vol. ix, p. 119, pl. xxxvii, f. 129.

G. paula.
J. A. N. S., (214) vol. v, 1862, p. 244, pl. xxxv, f. 48; (243) vol. vi, 1866, p. 139; Obs. Gen. Unio, (215) vol. ix, p. 66, pl. xxxv, f. 48; (244) vol. xi, p. 95.

G. paupercula.
J. A. N. S., (214) vol. v, 1862, p. 324, pl. xxxviii, f. 176; Obs. Gen. Unio, (215) vol. ix, pp. 146, 147, pl. xxxviii, f. 176.

G. perfusca.
J. A. N. S., (214) vol. v, 1862, pp. 304, 332; Obs. Gen. Unio, 215 vol. ix, pp. 126, 154.

G. pergrata.
J. A. N. S., (214) vol. v, 1862, p. 243, pl. xxxv, f. 47; Obs. Gen. Unio, (215) vol. ix, p. 65, pl. xxxv, f. 47.

G. pallescens.
J. A. N. S., (243) vol. vi, 1866, p. 130; Obs. Gen. Unio, (244) vol. xi, p. 86.

[illegible]

J. A. N. S., (243) vol. vi, 1866, pl. xxiii, f. 47. Obs. Gen. Unio, (244) vol. xi, p. 86, pl. xxiii, f. 47.

G. Postulii.

J. A. N. S., (214) vol. v, 1862, p. 343, pl. xxxviii, f. 208; Obs. Gen. Unio, (215) vol. ix, p. 165, pl. xxxviii, f. 208.

G. Prairiensis.

J. A. N. S., (214) vol. v, 1862, p. 290; pl. xxxvii, f. 132; Obs. Gen. Unio, (215) vol. ix, p. 121, pl. xxxvii, f. 132.

G. Prestoniana.

J. A. N. S., (243) vol. vi, 1866, p. 137; Obs. Gen. Unio, (244) vol. xi, p. 93.

G. proletaria.

J. A. N. S., (214) vol. v, 1862, p. 325, pl. xxxviii, f. 177; Obs. Gen. Unio, (215) vol. ix, p. 147, pl. xxxvii, f. 177.

G. propinqua.

J. A. N. S., 214 vol. v, 1862, p. 234, pl. xxxiv, f. 29; Obs. Gen. Unio, (215) vol. ix, p. 56, pl. xxxiv, f. 29.

G. propria.

J. A. N. S., 214, vol. v, 1862, p. 229, pl. xxxiv, f. 21; Obs. Gen. Unio, (215) vol. ix, p. 51, pl. xxxiv, f. 21.

G. proxima.

J. A. N. S., (214) vol. v, 1862, pp. 334, 336, 352; Obs. Gen. Unio, (215) vol. ix, pp. 156, 158, 175.

G. pudica.

J. A. N. S., (214) vol. v, 1862, p. 222, pl. xxxiv, f. 7; Obs. Gen. Unio, (215) vol. ix, p. 4, pl. xxxiv, f. 7.

G. pulla.

[illegible]

G. [illegible]

[illegible]

Gonidea quadrulata.

J. A. N. S., (214) vol. v, 1862, p. 236; Obs. Gen. Unio, (215) vol. ix, p. 63, pl. xxxiv, f. 15.

G. rara.

J. A. N. S., (214) vol. v, 1862, p. 250, pl. xxiv, f. 3; Obs. Gen. Unio, (215) vol. ix, p. 6, pl. xxxiv, f. 3.

G. rhombica.

J. A. N. S., (214) vol. v, 1862, p. 244; (243) vol. vi, 1866, pp. 138, 232; Obs. Gen. Unio, (215) vol. ix, p. 66; Obs. vol. xi, pp. 88, 86.

G. robusta.

J. A. N. S., (214) vol. v, 1862, p. 230; Obs. Gen. Unio, (215) vol. ix, p. 61.

G. Romæ.

J. A. N. S., (243) vol. vi, 1866, p. 129, pl. xiii, f. 30; Obs. Gen. Unio, (244) vol. xi, p. 85, pl. xxxiii, f. 30.

G. rubella.

J. A. N. S., (214) vol. v, 1862, p. 332, pl. xxxvii, f. 191; (243) vol. vi, 1866, p. 138; Obs. Gen. Unio, (215) vol. ix, p. 154, pl. xxxvii, f. 191; (244) vol. xi, p. 94.

G. [illegible]

J. A. N. S., (214) vol. v, 1862, 233, pl. xxiv, f. 2; Obs. Gen. Unio, (215) vol. ix, p. 55, pl. xxiv, f. 2.

G. [illegible]

[illegible] (214) vol. v, 1862, p. 333, pl. xxxvi, f. 15; Obs. Gen. Unio, (215) vol. ix, p. 15, pl. xxxvii, f. 138.

G. [illegible]

[illegible] (214) vol. v, 1862, p. 235, pl. xxxvii, f. 17; Obs. Gen. Unio, (215) vol. ix, p. 57, pl. xxxvii, f. 17.

G. [illegible]

[illegible] (214) vol. v, 1862, p. 228; Obs. Gen. Unio, (215) vol. ix, p. 50.

G. [illegible]

[illegible] (214) vol. v, 1862, p. 238; Obs. Gen. Unio, (215) vol. ix, p. 58.

G. [illegible]

[illegible] (214) vol. v, 1862, p. 148; Obs. [illegible] (214) vol. xi, p. 114.

G. [illegible]

[illegible] (214) vol. v, 1862, p. 228; Obs. Gen. Unio, (215) vol. ix, p. 150.

G. [illegible]

[illegible] (214) vol. v, 1862, p. 337, pl. xxxviii, f. 199; Obs. Gen. Unio, (215) vol. ix, p. 159, pl. xxxviii, f. 199.

G. [illegible]

J. A. N. S., (214) vol. v, 1862, p. 228, pl. xxxiv, f. 5; Obs. Gen. Unio, (215) vol. ix, p. 50, pl. xxxiv, fig. 5.

G. [illegible]

J. A. N. S., (214) vol. v, 1862, pp. 220, 227, pl. xxxiv, f. 4; Obs. Gen. Unio, (215) vol. ix, pp. 42, 49, pl. xxxiv, f. 4.

G. [illegible]

J. A. N. S., (258) vol. vi, 1868, p. 328, pl. liv, f. 2; Obs. Gen. Unio, (259) vol. xii, p. 88, pl. liv, f. 2.

G. [illegible]

J. A. N. S., (243) vol. vi, 1866, p. 137, pl. xxiii, f. 44; Obs. Gen. Unio, (244) vol. xi, p. 93, pl. xxii, f. 44.

Goniobasis solidula.
J. A. N. S., (214) vol. v, 1862, p. 230, pl. xxxiv, f. 23; Obs. Gen. Unio, (215) vol. ix, p. 52, pl. xxxiv, f. 23.

G. Spartanbergensis.
J. A. N. S., (214) vol. v, 1862, p. 307, pl. xxxvii, f. 147; (243) vol. vi, 1866, p. 133; Obs. Gen. Unio, (215) vol. ix, p. 129, pl. xxxvii, f. 147; (244) vol. xi, p. 89. Errata.

G. sparsa.
J. A. N. S., (214) vol. v, 1862, p. 316, pl. xxxvii, f. 162; Obs. Gen. Unio, (215) vol. ix, p. 138, pl. xxxvii, f. 162.

G. Spillmanii.
J. A. N. S., (214) vol. v, 1862, p. 302, pl. xxxvii, f. 138; Obs. Gen. Unio, (215) vol. ix, pl. xxxvii, f. 138.

G. spinella.
J. A. N. S., (214) vol. v, 1862, p. 298, pl. xxxvii, f. 120; Obs. Gen. Unio, (215) vol. ix, p. 120, pl. xxxvii, f. 120.

G. Steerdsoniana.
J. A. N. S., (214) vol. v, 1862, p. 344, pl. xxxviii, f. 210; Obs. Gen. Unio, (215) vol. ix, p. 166, pl. xxxviii, f. 210.

G. stramina.
J. A. N. S., (214) vol. v, 1862, pp. 227, 228; Obs. Gen. Unio, (215) vol. ix, pp. 49, 50, pl. xxxiv, f. 16.

G. striata.
J. A. N. S., (214) vol. v, 1862, p. 316, pl. xxxvii, f. 161; Obs. Gen. Unio, (215) vol. ix, p. 138, pl. xxxvii, f. 161.

G. striatula.
J. A. N. S., (214) vol. v, 1866, p. 268; Obs. Gen. Unio, (215) vol. ix, p. 90.

G. striosa.
J. A. N. S., (214) vol. v, 1862, p. 298; (243) vol. vi, 1866, p. 140; Obs. Gen. Unio, (215) vol. ix, p. 120; (244) vol. xi, p. 96.

G. suavis.
J. A. N. S., (214) vol. v, 1862, pp. 221, 228, 330, pl. xxxiv, f. 19; Obs. Gen. Unio, (215) vol. ix, pp. 43, 50, 152, pl. xxxiv, f. 19.

G. subangulata.
J. A. N. S., (214) vol. v, 1862, p. 320; Obs. Gen. Unio, (215) vol. ix, p. 152.

G. subrhombica.
J. A. N. S., (243) vol. vi, 1866, p. 132; Obs. Gen. Unio, (244) vol. xi, p. 88, pl. xxiii, f. 34.

G. suleata.
J. A. N. S., (258) vol. vi, 1868, p. 329, pl. liv, f. 3; Obs. Gen. Unio, (259) vol. xii, p. 89, pl. liv, f. 3.

G. Tartrianae.
J. A. N. S., (214) vol. v, 1862, p. 301; Obs. Gen. Unio, (215) vol. ix, p. 123.

G. tenebrosa.
J. A. N. S., (214) vol. v, 1862, p. 335; (243) vol. vi, 1866, p. 133; Obs. Gen. Unio, (215) vol. ix, p. 157; (244) vol. xi, p. 89.

G. tenebreitiata.
J. A. N. S., (214) vol. v, 1862, p. 301, pl. xxxvii, f. 136; Obs. Gen. Unio, (215) vol. ix, p. 123, pl. xxxvii, f. 136.

Goniobasis terebralis.
J. A. N. S., (214) vol. v, 1862, p. 298; Obs. Gen. Unio, (215) vol. ix, p. 120.

G. teres.
J. A. N. S., (214) vol. v, 1862, pp. 332, 333; Obs. Gen. Unio, (215) vol. ix, pp. 154, 155.

G. Thorntonii.
J. A. N. S., (214) vol. v, 1862, p. 320, pl. xxxviii, f. 168; Obs. Gen. Unio, (215) vol. ix, p. 142, pl. xxxviii, f. 168.

G. Tryoniana.
J. A. N. S., (214) vol. v, 1862, pp. 339, 342, pl. xxxviii, f. 207; Obs. Gen. Unio, (215) vol. ix, pp. 161, 164, pl. xxxviii, f. 207.

G. Tuomeyi.
J. A. N. S., (214) vol. v, 1862, p. 311, pl. xxxvii, f. 153; Obs. Gen. Unio, (215) vol. ix, p. 133, pl. xxxvii, f. 153.

G. Ucheénsis.
J. A. N. S., (214) vol. v, 1862, pp. 334, 335, pl. xxxviii, f. 194; Obs. Gen. Unio, (215) vol. ix, pp. 156, 157, pl. xxxviii, f. 194.

G. Vanuxemiana.
J. A. N. S., (214) vol. v, 1862, pp. 234, 238, 307, 338, 350, pl. xxxvii, f. 146; Obs. Gen. Unio, (215) vol. ix, pp. 56, 60, 129, 160, 172, pl. xxxvii, f. 146.

G. Vanuxemii.
J. A. N. S., (243) vol. vi, 1866, p. 137; Obs. Gen. Unio, (244) vol. xi, p. 93.

G. varians.
J. A. N. S., (214) vol. v, 1862, pp. 219, 220, pl. xxxiv, f. 2; Obs. Gen. Unio, (215) vol. ix, pp. 41, 42, pl. xxxiv, f. 2.

G. variata.
J. A. N. S., (214) vol. v, 1862, p. 224, pl. xxxiv, f. 11; Obs. Gen. Unio, (215) vol. ix, p. 46, pl. xxxiv, f. 11.

G. varicosa.
J. A. N. S., (214) vol. v, 1862, p. 306; Obs. Gen. Unio, (215) vol. ix, p. 128.

G. Vauxiana.
J. A. N. S., (214) vol. v, 1862, pp. 309, 310, pl. xxxvii, f. 150; (243) vol. vi, 1866, p. 153; Obs. Gen. Unio, (215) vol. ix, pp. 131, 132, pl. xxxvii, f. 150; (244) vol. xi, p. 109.

G. venusta.
J. A. N. S., (258) vol. vi, 1868, p. 336, pl. liv, f. 17; Obs. Gen. Unio, (259) vol. xii, p. 96, pl. liv, f. 17.

G. versa.
J. A. N. S., (243) vol. vi, 1866, p. 137; Obs. Gen. Unio, (244) vol. xi, p. 93.

G. vesicula.
J. A. N. S., (214) vol. v, 1862, p. 242, pl. xxxv, f. 45; Obs. Gen. Unio, (215) vol. ix, p. 64, pl. xxxv, f. 45.

G. Viennaensis.
J. A. N. S., (214) vol. v, 1862, p. 315, pl. xxxvii, f. 160; Obs. Gen. Unio, (215) vol. ix, p. 137, pl. xxxvii, f. 160.

G. Virginica.
J. A. N. S., (214) vol. v, 1862, p. 337; Obs. Gen. Unio, (215) vol. ix, p. 159.

Goniobasis virgulata.
J. A. N. S., (214) vol. v, 1862, p. 223, pl. xxxiv, f. 9; Obs. Gen. Unio, (215) vol. ix, p. 45, pl. xxxiv, f. 9.

G. viridistriata.
J. A. N. S., (243) vol. vi, 1866, pp. 140, 141, pl. xxiii, f. 48; Obs. Gen. Unio, (244) vol. xi, pp. 96, 97, pl. xxiii, f. 48.

G. viridicata.
J. A. N. S., (214) vol. v, 1862, p. 322, pl. xxxviii, f. 172; Obs. Gen. Unio, (215) vol. ix, p. 144, pl. xxxviii, f. 172.

G. vittatella.
J. A. N. S., (243) vol. vi, 1866, p. 134, pl. xxiii, f. 38; Obs. Gen. Unio, (244) vol. xi, p. 90, pl. xxiii, f. 38.

G. Warderiana.
J. A. N. S., (243) vol. vi, 1866, p. 138; Obs. Gen. Unio, (244) vol. xi, p. 94.

G. Wheatleyi.
J. A. N. S., (258) vol. vi, 1868, p. 328, pl. liv, f. 1; Obs. Gen. Unio, (259) vol. xii, p. 88, pl. liv, f. 1.

G. Whitei.
J. A. N. S., (214) vol. v, 1862, p. 310, pl. xxxvii, f. 151; Obs. Gen. Unio, (215) vol. ix, p. 132, pl. xxxvii, f. 151.

G. Whitfieldensis.
J. A. N. S., (258) vol. vi, 1868, p. 330, pl. liv, f. 6; Obs. Gen. Unio, (259) vol. xii, p. 90, pl. liv, f. 6.

GRATELUPIA.
(18) Con. Geol., 1833, p. 60.

G. donaciformis.
(18) Con. Geol., 1833, p. 60.

G. Moulinsii.
(18) Con. Geol., 1833, p. 59, pl. ii, f. 33.

GRYPHÆA.
P. A. N. S., (145) vol. x, 1858, p. 218.

GYROTOMA.
P. A. N. S., (182) vol. xii, 1860, p. 186; J. A. N. S., (214) vol. v, 1862, p. 245; Obs. Gen. Unio, (215) vol. ix, p. 67.

G. demissa.
P. A. N. S., (182) vol. xii, 1860, p. 186; J. A. N. S., (214) vol. v, 1862, p. 246; Obs. Gen. Unio, (215) vol. ix, p. 68.

G. quadrata.
P. A. N. S., (182) vol. xii, 1860, p. 186; J. A. N. S., (214) vol. v, 1862, p. 246; Obs. Gen. Unio, (215) vol. ix, p. 68.

HELICINA.

Helicina lens.
T. A. P. S., (20) vol. v, 1832, p. 49, pl. xix, f. 56; Obs. Gen. Unio, (21) vol. i, p. 161, pl. xix, f. 56.

H. pulcherrima.
T. A. P. S., (20) vol. v, 1832, p. 49, pl. xix, f. 57; (27) vol. vi, 1836, p. 69; Obs. Gen. Unio, (21) vol. i, p. 161, pl. xix, f. 57; (29) vol. ii, p. 69.

H. virginea.
T. A. P. S., (20) vol. v, 1832, p. 50, pl. xix, f. 58; Obs. Gen. Unio, (21) vol. i, p. 162, pl. xix, f. 58.

HELIX.
T. A. P. S., (51) vol. ix, 1841, p. 1; (82) vol. x, 1852, p. 304; Obs. Gen. Unio, (56) vol. iv, p. 1; (83) vol. v, p. 60; P. Z. S. L., vol. xviii, 1850, p. 191.

Helix Balasteriana.
P. A. P. S., (31) vol. i, 1840, p. 175.

H. Balestieriana.
T. A. P. S., (38) vol. vii, 1841, p. 460, pl. xii, f.

H. Blainvilliana.
P. A. P. S., (31) vol. i, 1840, p. 174; T. A. P. (38) vol. vii, 1841, p. 463, pl. xii, f. 15.

H. Blandingiana.
P. A. P. S., (31) vol. i, 1840, p. 175; T. A. P. (38) vol. vii, 1841, p. 459, pl. xii, f. 9.

H. Bonplandii.
T. A. P. S., (82) vol. x, 1852, p. 305; Obs. Unio, (83) vol. v, p. 61.

H. Californiensis.
T. A. P. S., (27) vol. vi, 1837, pp. 99, 100, pl. xxi 79; J. A. N. S., (243) vol. vi, 1866, p. Obs. Gen. Unio, (29) vol. ii, pp. 99, 10 xxiii, f. 79; (244) vol. xi, p. 111; P. A. (109) vol. viii, 1856, p. 81.

H. carioscula.
T. A. P. S., (38) vol. vii, 1841, p. 465.

H. Carolinensis.
T. A. P. S., (15) vol. iv, 1830, pp. 102, 103, f. 33, a, b, c.; Obs. Gen. Unio, (21) vol 112, pl. xv, f. 33, a, b, c.

H. cepoides.
P. A. P. S., (31) vol. i, 1840, p. 174; T. A. (38) vol. vii, 1841, p. 462, pl. xii, f. 14.

H. cineta.
T. A. P. S., (20) vol. v, 1832, p. 56, pl. xix, Obs. Gen. Unio, (21) vol. i, p. 168, pl. f. 68.

H. citrina.
T. A. P. S., (20) vol. v, 1832, p. 55; (38) vol 1841, p. 462; Obs. Gen. Unio, (21) vol. 167.

H. Clarkii.
P. A. N. S., (137) vol. x, 1858, p. 41; J. A. N (243) vol. vii, 1866, p. 182, pl. xxiv, f. Obs. Gen. Unio, (244) vol. xi, p. 138, pl. f. 111.

H. clausa.
T. A. P. S., (27) vol. vi, 1836, p. 87; Obs. Unio, (29) vol. ii, p. 87.

H. Columbiana.
T. A. P. S., (27) vol. vi, 1836, p. 89, pl. xx 75; Obs. Gen. Unio, (29) vol. ii, p. 8 xxiii, f. 75.

H. concava.
T. A. P. S., (27) vol. vi, 1836, p. 88; Obs. Unio, (29) vol. ii, p. 88.

H. contusa.
T. A. P. S., (38) vol. 7, 1841, p. 460.

H. Couchiana.
P. A. N. S., (125) vol. ix, 1857, p. 102; J. S., (243) vol. vi, 1866, pp. 183, 184, pl. f. 112; Obs. Gen. Unio, (244) vol. 139, 140, pl. xxiv, f. 112.

H. Cuvieriana.
P. A. P. S., (31) vol. i, 1840, p. 175; T. S., (38) vol. vii, 1841, p. 461, pl. xii, f.

H. cyclostoma.
T. A. P. S., (20) vol. v, 1832, p. 53; Obs. Unio, (21) vol. i, p. 165.

H. cyclostomopsis.
T. A. P. S., (20) vol. v, 1832, p. 53, pl. xix,

Helephana.
T. A. P. S., (20) vol. v. 1832, p. 54, pl. xix, f. 65; Obs. Gen. Unio, (21) vol. i, p. 166, pl. xix, f. 65.

Hygriata.
T. A. P. S., (82) vol. x, 1852, p. 304; Obs. Gen. Unio, (83) vol. v, p. 60.

Hyperaspina.
T. A. P. S., (31) vol. i, 1840, p. 175; T. A. P. S., (38) vol. vii, 1841, p. 464.

Hybula.
T. A. P. S., (20) vol. v, 1832, p. 58, pl. xix, f. 70; Obs. Gen. Unio, (21) vol. i, p. 170, pl. xix, f. 70.

Hymenatoma.
T. A. P. S., (38) vol. vii, 1841, p. 464.

Hymalana.
T. A. P. S., (20) vol. v, 1832, p. 55, pl. xix, f. 66; (38) vol. vii, 1841, pp. 460, 462, 463; Obs. Gen. Unio, (21) vol. i, p. 67, pl. xix, f. 66.

Hyrnia.
T. A. P. S., (15) vol. iv, 1830, p. 104; (51) vol. ix, 1841, p. 2; (82) vol. x, 1852, pp. 303, 304; Obs. Gen. Unio, (21) vol. i, p. 114; (56) vol. iv, p. 2; (83) vol. v, pp. 59, 60.

Hymphreysiana.
T. A. P. S., (31) vol. i, 1840, p. 175; T. A. P. S., (38) vol. vii, 1841, p. 463, pl. xii, f. 16.

Hyflecta.
T. A. P. S., (82) vol. x, 1852, p. 303; Obs. Gen. Unio, (83) vol. v, p. 59.

Hyena.
T. A. P. S., (27) vol. vi, 1836, p. 87; (51) vol. ix, 1841, p. 17; Obs. Gen. Unio, (29) vol. ii, p. 87; (59) vol. iv, p. 17.

Hybyriathica.
T. A. P. S., (51) vol. ix, 1841, p. 18; Obs. Gen. Unio, (56) vol. iv, p. 18.

Hyvipes.
T. A. P. S., (20) vol. v, 1832, p. 55; Obs. Gen. Unio, (21) vol. i, p. 167.

Hymarckiana.
T. A. P. S., (31) vol. i, 1840, p. 174; T. A. P. S., (38) vol. vii, 1841, pp. 461, 463, pl. xii, f. 11.

Hoas.
T. A. P. S., (82) vol. x, 1852, pp. 303, 304; Obs. Gen. Unio, (83) vol. v, pp. 59, 60.

Hovatii.
T. A. P. S., (82) vol. x, 1852, pp. 303, 304; pl. xxx, f. 13; Obs. Gen. Unio, (83) vol. v, pp. 59, 60, pl. xxx, f. 13.

Hporina.
T. A. P. S., (82) vol. x. 1852, p. 304; Obs. Gen. Unio, (83) vol. v, p. 60.

Hpora.
T. A. P. S., (27) vol. vi, 1836, p. 67; Obs. Gen. Unio (29) vol. ii, p. 67.

Hublata.
T. A. P. S., (51) vol. ix, 1841, p. 1; Obs. Gen. Unio, (56) vol. iv, p. 1.

Hubo-fasciata.
T. A. P. S., (31) vol. i, 1840, p. 175; T. A. P. S., (38) vol. vii, 1841, p. 462, pl. xii, f. 13.

Hugnifica.
T. A. P. S., (27) vol. vi, 1836, p. 69, pl. xxiii, f. 86; Obs. Gen. Unio, (29) vol. ii, p. 89, pl. xxiii, f. 86.

Helix mamilla.
T. A. P. S., (20) vol. v, 1832, pp. 52, 54, pl. xix, f. 64; Obs. Gen. Unio, (21) vol. i, pp. 164, 166, pl. xix, f. 64.

H. minutissima.
P. A. P. S., (40) vol. ii, 1841, p. 82; T. A. P. S., (51) vol. ix, 1841, p. 17; Obs. Gen. Unio, (56) vol. iv, p. 17.

H. Mitchelliana.
T. A. P. S., (27) vol. vi, 1836, p. 87, pl. xxiii, f. 71; Obs. Gen. Unio, (29) vol. ii, p. 87, pl. xxiii, f. 71.

H. Mobiliana.
P. A. P. S., (40) vol. ii, 1841, p. 82; T. A. P. S., (51) vol. ix, 1841, p. 17; Obs. Gen. Unio, (56) vol. iv, p. 17.

H. monodon.
T. A. P. S., (82) vol. x, 1852, p. 304; Obs. Gen. Unio, (83) vol. v, p. 60.

H. monodonta.
T. A. P. S., (20) vol. v, 1832, p. 53, pl. xix, f. 62; Obs. Gen. Unio, (21) vol. i, p. 165, pl. xix, f. 62.

H. monozonalis.
T. A. P. S., (38) vol. vii, 1841, p. 461.

H. muscarum.
T. A. P. S., (20) vol. v, 1832, p. 51, pl. xix, f. 59; Obs. Gen. Unio, (21) vol. i, p. 163; pl. xix, f. 59.

H. Nickliniana.
T. A. P. S., (27) vol. vi, 1837, p. 100, pl. xxiii, f. 84; J. A. N. S., (243) vol. vi, 1866, p. 155; Obs. Gen. Unio, (29) vol. ii, p. 100, pl. xxiii, f. 84; (244) vol. xi, p. 111; P. A. N. S., (109) vol. viii, 1856, p. 81.

H. Nuttalliana.
T. A. P. S., (27) vol. vi, 1836, p. 88, pl. xxiii, f. 74; (38) vol. vii, 1841, p. 462; Obs. Gen. Unio, (29) vol. ii, p. 88, pl. xxiii, f. 74.

H. Oregonensis.
T. A. P. S., (27) vol. vi, 1837, p. 100, pl. xxiii, f. 85; J. A. N. S., (243) vol. vi, 1866, p. 155; Obs. Gen. Unio, (29) vol. ii, p. 100, pl. xxiii, f. 85; (244) vol. xi, p. 111; P. A. N. S., (109) vol. viii, 1856, p. 81.

H. ovum reguli.
T. A. P. S., (20) vol. v, 1832, p. 52, pl. xix, f. 61; Obs. Gen. Unio, (21) vol. i, p. 164, pl. xix, f. 61.

H. palliata.
T. A. P. S., (15) vol. iv, 1830, pp. 102, 103; J. A. N. S., (243) vol. vi, 1866, p. 183; Obs. Gen. Unio, (21) vol. i, pp. 112, 113; (244) vol. xi, p. 139.

H. pellis serpentis.
T. A. P. S., (27) vol. vi, 1836, p. 90; Obs. Gen. Unio, (29) vol. ii, p. 90.

H. Pennsylvanica.
J. A. N. S., (243) vol. vi, 1866, p. 182; Obs. Gen. Unio, (244) vol. xi, p. 138.

H. purpuragula.
T. A. P. S., (20) vol. v, 1832, p. 51, pl. xix, f. 60; (27) vol. vi, 1836, p. 69; Obs. Gen. Unio, (21) vol. i, p. 163, pl. xix, p. 163; (29) vol. ii, p. 69.

H. Richardii.
T. A. P. S., (82) vol. x, 1852, p. 305; Obs. Gen. Unio, (83) vol. v, p. 61.

Helix Senegalensis.
T. A. P. S., vii, 1841, p. 460.

H. solidaria.
T. A. P. S., (27) vol. vi, 1836, p. 88; Obs. Gen. Unio, (29) vol. ii, p. 88.

H. Tamaulipasensis.
P. A. N. S., (125) vol. ix, 1857, p. 102; J. A. N. S., (243) vol. vi, 1866, p. 186, pl. xxiv, f. 113; Obs. Gen. Unio, (244) vol. xi, p. 139, pl. xxiv, f. 113.

H. Tennesseensis.
P. A. P. S., (39) vol. ii, 1841, p. 31; T. A. P. S., (51) vol. ix, 1841, p. 1; Obs. Gen. Unio, (56) vol. iv, p. 1.

H. Texasiana.
J. A. N. S., (243) vol. vi, 1866, p. 184; Obs. Gen. Unio, (244) vol. xi, p. 140.

H. thyroideus.
T. A. P. S., (27) vol. vi, 1836, p. 89; 1837, p. 99; Obs. Gen. Unio, (29) vol. ii, pp. 89, 99.

H. Townsendiana.
T. A. P. S., (27) vol. vi, 1837, p. 99, pl. xxiii, f. 80; Obs. Gen. Unio, (29) vol. ii, p. 99, pl. xxiii, f. 80.

H. Troostiana.
J. A. N. S., (243) vol. vi, 1866, pp. 183, 184; Obs. Gen. Unio, (244) vol. xi, pp. 139, 140.

H. unidentata.
T. A. P. S., (38) vol. vii, 1841, pp. 463, 464.

H. Vancouverensis.
T. A. P. S., (27) vol. vi, 1836, p. 87, pl. xxiii, f. 72; Obs. Gen. Unio, (29) vol. ii, p. 87, pl. xxiii, f. 72.

H. vesica.
T. A. P. S., (20) vol. v, 1832, p. 56, pl. xix, f. 67; Obs. Gen. Unio, (21) vol. i, p. 168, pl. xix, f. 67.

H. viridis.
T. A. P. S., (38) vol. vii, 1841, p. 456.

H. Wardiana.
T. A. P. S., (27) vol. vi, 1836, p. 67, pl. xxiii, f. 82; Obs. Gen. Unio, (29) vol. ii, p. 67, pl. xxiii, f. 82.

H. Woodiana.
T. A. P. S., (20) vol. v, 1832, p. 57, pl. xix, f. 69; Obs. Gen. Unio, (21) vol. i, p. 169, pl. xix, f. 69.

HIPPAGUS.
(18) Con. Geol., 1833, p. 72.

H. isocardioides.
(18) Con. Geol., 1833, p. 72, pl. ii, f. 50.

HIPPONIX.
(18) Con. Geol., 1833, p. 96.

H. cornucopia.
(18) Con. Geol., 1833, p. 95.

H. pygmæa.
(18) Con. Geol., 1833, p. 95, pl. iii, f. 75.

HYRIA.
T. A. P. S., (12) vol. iii, 1829, pp. 442, 443; (27) vol. vi, 1838, pp. 109, 115, 142; Obs. Gen. Unio, (21) vol. i, pp. 56, 57; (29) vol. ii, pp. 109, 115, 142.

H. avicularis.
T. A. P. S., (15) vol. iv, 1830, pp. 67, 107; (20) vol. v, 1833, pp. 41, 92; (27) vol. vi, 1838, p. 121; Obs. Gen. Unio, (21) vol. i, pp. 77, 117, 204; (29) vol. ii, p. 121.

Hyria corrugata.
T. A. P. S., (20) vol. v, 1833, p. 92; (2
1838, p. 121; Obs. Gen. Unio, (21
204; (29) vol. ii, p. 121.

H. elongata.
T. A. P. S., (27) vol. vi, 1838, p. 121;
Unio, (29) vol. ii, p. 121.

H. syrmatophora.
T. A. P. S., (27) vol. vi, 1838, pp. 109,
Gen. Unio, (29) vol. ii, pp. 109, 121.

INFUNDIBULUM.
(18) Con. Geol., 1833, p. 97.

I. trochiformis.
(18) Con. Geol., 1833, p. 96, pl. iii, f. 76

INOCERAMUS.
(18) Con. Geol., 1833, p. 72; P. A. N
vol. x, 1858, p. 221.

Io.
T. A. P. S., (16) vol. iv, 1831, pp. 122,
vol. ix, 1841, p. 17; J. A. N. S., (2
1862, pp. 218, 269, 345; (243) vol. vi
145, 149; Obs. Gen. Unio, (21) vol.
(56) vol. iv, p. 17; (215) vol. ix, p
167; (244) vol. xi, pp. 101, 105; P
(201) vol. xii, 1861, p. 393.

I. fluviatilis.
T. A. P. S., (51) vol. ix, 1841, p. 17;
Unio, (56) vol. iv, p. 17.

I. fusiformis.
T. A. P. S., (16) vol. iv, 1831, p. 122
f. 37, a, b; (20) vol. v, 1834, p. 1
Gen. Unio, (21) vol. i, pp. 132, 22
f. 37, a, b; P. A. N. S., (201) vol. x
p. 393.

I. gracilis.
P. A. N. S., (201) vol. xiii, 1861, p. 394;
S., 214, vol. v, 1862, p. 349, pl. xxxi
Obs. Gen. Unio, (215) vol. ix, p. 171,
f. 217.

I. modesta.
P. A. N. S., (201) vol. xiii, 1861, p. 394;
S., (214) vol. v, 1862, p. 348, pl. xxxi
Obs. Gen. Unio, (215) vol. ix, p. 170,
f. 216.

I. nodosa.
P. A. N. S., (201) vol. xiii, 1861, p. 393;
S., (214) vol. v, 1862, pp. 346, 347, p
f. 212; Obs. Gen. Unio, (215) vol. ix
169, pl. xxxix, f. 212.

I. robusta.
P. A. N. S., (201) vol. xiii, 1861, p. 393;
S., (214) vol. v, 1862, p. 346, pl. xxxi
Obs. Gen. Unio, (215) vol. ix, p. 168,
f. 213.

I. Spillmanii.
P. A. N. S., (201) vol. xiii, 1861, p. 394;
S., (214) vol. v, 1862, pp. 348, 349, p
f. 215; Obs. Gen. Unio, (215) vol. ix
171, pl. xxxix, f. 215.

I. spinosa.
T. A. P. S., (20) vol. v, 1834, p. 112, pl. x
(51) vol. ix, 1841, p. 17; Obs. Gen. U
vol. i, p. 224, pl. xix, f. 79; (56) vol. i
(215) vol. ix, p. 167; J. A. N. S., (24
1862, p. 345; P. A. N. S., (201) vol. x
p. 393.

L. [illegible]

P. A. N. S., (39) vol. ii, 1841, p. 34; T. A. P. S., (51) vol. ix, 1841, p. 17; Obs. Gen. Unio, (56) vol. iv, p. 17.

L. [illegible]

P. A. N. S., (201) vol. xiii, 1861, p. 393; J. A. N. S., (214) vol. v, 1862, p. 347, pl. xxxix, f. 219; Obs. Gen. Unio, (215) vol. ix, p. 169, pl. xxxix, f. 219.

L. [illegible]

P. A. N. S., (201) vol. xiii, 1861, p. 394; J. A. N. S., (214) vol. v, 1862, p. 349, pl. xxxix, f. 218; Obs. Gen. Unio, (215) vol. ix, p. 171, pl. xxxix, f. 218.

TRIDINA.

T. A. P. S., (12) vol. iii, 1829, pp. 442, 443; (27) vol. vi, 1838, pp. 114, 115, 117, 118, 141, 150; Obs. Gen. Unio, (21) vol. i, p. 57; (29) vol. ii, pp. 114, 115, 117, 118, 141, 150.

T. Clappertoni.

T. A. P. S., (20) vol. v, 1833, p. 94; Obs. Gen. Unio, (21) vol. i, p. 206.

T. [illegible]

T. A. P. S., (27) vol. vi, 1836, p. 82, pl. xxii, f. 79; Obs. Gen. Unio, (29) vol. ii, p. 82, pl. xxii, f. 79.

T. [illegible]

T. A. P. S., (27) vol. vi, 1838, p. 140; Obs. Gen. Unio (29) vol. ii, p. 140.

T. [illegible]

T. A. P. S., (20) vol. v, 1833, p. 94; (27) vol. vi, 1838, pp. 118, 141, 150; Obs. Gen. Unio, (21) vol. i, p. 206; (29) vol. ii, pp. 118, 141, 150.

T. [illegible]

T. A. P. S., (27) vol. vi, 1838, p. 142; Obs. Gen. Unio, (29) vol. ii, p. 142.

T. [illegible]

T. A. P. S., (15) vol. iv, 1830, p. 67; (20) vol. v, 1833, p. 94; (27) vol. vi, 1838, p. 118; Obs. Gen. Unio, (21) vol. i, pp. 77, 206; (29) vol. ii, p. 118.

T. [illegible]

T. A. P. S., (27) vol. vi, 1838, p. 142; Obs. Gen. Unio, (29) vol. ii, p. 142.

T. [illegible]

T. A. P. S., (27) vol. vi, 1838, p. 141; Obs. Gen. Unio, (29) vol. ii, p. 141.

T. [illegible]

T. A. P. S., (27) vol. vi, 1838, pp. 141, 150; Obs. Gen. Unio, (29) vol. ii, pp. 141, 150.

T. [illegible]

T. A. P. S., (27) vol. vi, 1838, p. 142; Obs. Gen. Unio, (29) vol. ii, p. 142.

T. [illegible]

T. A. P. S., (20) vol. v, 1833, p. 93; (27) vol. vi, 1838, p. 138; J. A. N. S., (242) vol. vi, 1866, p. 64; Obs. Gen. Unio, (21) vol. i, p. 205; (29) vol. ii, p. 138; (244) vol. xi, p. 63.

T. [illegible]

T. A. P. S., (27) vol. vi, 1838, p. 141; Obs. Gen. Unio, (29) vol. ii, p. 141.

T. [illegible]

T. A. P. S., (27) vol. vi, 1838, p. 139; Obs. Gen. Unio, (29) vol. ii, p. 139.

Isocardia cor.

(18) Con. Geol., 1833, p. 72; J. A. N. S., (133) vol. iii, 1857, p. 318; Obs. Gen. Unio, (150) vol. vi, p. 38.

I. Moltkiana.

J. A. N. S., (133) vol. iii, 1857, pp. 318, 319; Obs. Gen. Unio, (150) vol. vi, pp. 38, 39.

Lasmonos fragilis.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

Leila Parishii.

T. A. P. S., (27) vol. vi, 1838, p. 139; Obs. Gen. Unio, (29) vol. ii, p. 139.

LITHASIA.

J. A. N. S., (214) vol. v, 1862, pp. 217, 218, 257, 269, 312, 346; (243) vol. vi, 1866, pp. 133, 134, 150, 151; Obs. Gen. Unio, (215) vol. ix, pp. 39, 40, 79, 91, 134, 168; vol. xi, pp. 89, 90, 106, 107; P. A. N. S., (201) vol. xiii, 1861, p. 393.

L. armigera.

J. A. N. S., (243) vol. vi, 1866, p. 146; Obs. Gen. Unio, (244) vol. xi, p. 102.

L. brevis.

J. A. N. S., (214) vol. v, 1862, p. 354; Obs. Gen. Unio, (215) vol. ix, p. 176.

L. curta.

J. A. N. S., (258) vol. vi, 1868, p. 340, pl. liv, f. 24; Obs. Gen. Unio, (259) vol. xii, p. 100, pl. liv, f. 24.

L. cylindrica.

J. A. N. S., (258) vol. vi, 1868, p. 341, pl. liv, f. 26; Obs. Gen. Unio, (259) vol. xii, p. 901, pl. liv, f. 26.

L. dilatata.

P. A. N. S., (193) vol. xiii, 1861, p. 55; J. A. N. S., (214) vol. v, 1862, p. 260, pl. xxxv, f. 69; Obs. Gen. Unio, (215) vol. ix, p. 82, pl. xxxv, f. 69.

L. Downiei.

J. A. N. S., (214) vol. v, 1862, p. 354, pl. xxxix, f. 227; (243) vol. vi, 1866, p. 134; Obs. Gen. Unio, (215) vol. ix, p. 176, pl. xxxix, f. 227; (244) vol. xi, p. 90.

L. Duttoniana.

J. A. N. S., (214) vol. v, 1862, pp. 242, 259, 314; Obs. Gen. Unio, (215) vol. ix, pp. 64, 81, 136.

L. Florentiana.

J. A. N. S., (214) vol. v, 1862, pp. 224, 260; Obs. Gen. Unio, (215) vol. ix, pp. 46, 82.

L. fuliginosa.

J. A. N. S., (214) vol. v, 1862, p. 224; Obs. Gen. Unio, (215) vol. ix, p. 46.

L. fusiformis.

P. A. P. S., (193) vol. xiii, 1861, p. 54; J. A. N. S., (214) vol. v, 1862, p. 261, pl. xxxv, f. 71; Obs. Gen. Unio, (215) vol. ix, p. 83, pl. xxxv, f. 71.

L. imperialis.

P. A. N. S., (193) vol. xiii, 1861, p. 55; J. A. N. S., (214) vol. v, 1862, pp. 258, 260, pl. xxxv, f. 67; Obs. Gen. Unio, (215) vol. ix, pp. 80, 82, pl. xxxv, f. 67.

L. Jayana.

J. A. N. S., (243) vol. vi, 1866, p. 146; Obs. Gen. Unio, (244) vol. xi, p. 102.

Lithasia nuclea.
P. A. N. S., (182) vol. xii, 1860, p. 188; J. A. N. S., (214) vol. v, 1862, p. 263, pl. xxxv, f. 73; Obs. Gen. Unio, (215) vol. ix, p. 85, pl. xxxv, f. 73.

L. pernodosa.
J. A. N. S., (243) vol. vi, 1866, p. 146; Obs. Gen. Unio, (244) vol. xi, p. 102.

L. pumila.
J. A. N. S., (214) vol. v, 1862, p. 279; Obs. Gen. Unio, (215) vol. ix, p. 101.

L. purpurea.
J. A. N. S., (258) vol. vi, 1868, p. 340, pl. liv, f. 23; Obs. Gen. Unio, (259) vol. xii, p. 100, pl. liv, f. 23.

L. salebrosa.
J. A. N. S., (214) vol. v, 1862, pp. 260, 261; Obs. Gen. Unio, (215) vol. ix, pp. 82, 83.

L. semigranulata.
J. A. N. S., (214) vol. v, 1862, p. 260; Obs. Gen. Unio, (215) vol. ix, p. 82; (244) vol. xi, Errata.

L. semigranulosa.
J. A. N. S., (244) vol. xi, Errata.

L. Showalterii.
P. A. N. S., (182) vol. xii, 1860, p. 188; J. A. N. S., (214) vol. v, 1862, pp. 226, 262, 311, pl. xxxv, f. 72; Obs. Gen. Unio, (215) vol. ix, pp. 48, 84, 133, pl. xxxv, f. 72.

L. subglobosa.
P. A. N. S., (193) vol. xiii, 1861, p. 55; J. A. N. S., (214) vol. v, 1862, p. 261, pl. xxxv, f. 70; Obs. Gen. Unio, (215) vol. ix, p. 83, pl. xxxv, f. 70.

L. Tuomeyi.
J. A. N. S., (214) vol. v, 1862, p. 259, pl. xxxv, f. 68; Obs. Gen. Unio, (215) vol. ix, p. 81, pl. xxxv, f. 68; P. A. N. S., (193) vol. xiii, 1861, p. 55.

L. venusta.
J. A. N. S., (214) vol. v, 1862, p. 260; Obs. Gen. Unio, (215) vol. ix, p. 82.

L. vittata.
J. A. N. S., (214) vol. v, 1862, p. 354, pl. xxxix, f. 226; Obs. Gen. Unio, (215) vol. ix, p. 176, pl. xxxix, f. 226.

L. Wheatleyi.
J. A. N. S., (258) vol. vi, 1868, p. 341, pl. liv, f. 25; Obs. Gen. Unio, (259) vol. xii, p. 101, pl. liv, f. 25.

Lottia Antillarum.
T. A. P. S., (34) vol. vii, 1840, p. 74.

LUCINA.
(18) Con. Geol., 1833, p. 59.

L. compressa.
(18) Con. Geol., 1833, p. 55, pl. i, f. 27.

L. cornuta.
(18) Con. Geol., 1833, pp. 56, 57, pl. i, f. 29.

L. impressa.
(18) Con. Geol., 1833, pp. 57, 58, 59, pl. i, f. 30.

L. lunata.
(18) Con. Geol., 1833, p. 58, pl. i, f. 32.

L. mitris.
(18) Con. Geol., 1833, p. 58.

L. papyracea.
(18) Con. Geol., 1833, p. 58, pl. i, f. 31.

Lucina rotunda.
(18) Con. Geol., 1833, p. 56, pl. i, f. 28.

LUNULITES.
(18) Con. Geol., 1833, p. 190.

L. Bouei.
(18) Con. Geol., 1833, p. 189, pl. vi, f. 202.

L. Duclosii.
(18) Con. Geol., 1833, p. 190, pl. vi, f. 203.

L. radiata.
(18) Con. Geol., 1833, p. 190.

L. urceolata.
(18) Con. Geol., 1833, pp. 189, 190.

LUTRICOLA.
(18) Con. Geol., 1833, p. 49.

Lymnadia gigas.
T. A. P. S., vol. vi, 1838, p. 121; Obs. Gen. Unio, (29) vol. ii, p. 121.

LYMNÆA.
T. A. P. S., (51) vol. ix, 1841, p. 78; Obs. Gen. Unio, (56) vol. iv, p. 78.

L. acuta.
T. A. P. S., (20) vol. v, 1834, p. 114, pl. xix, f. 81; (51) vol. ix, 1841, p. 12; Obs. Gen. Unio, (21) vol. i, p. 226, pl. xix, f. 81; (56) vol. iv, p. 12.

L. apicina.
T. A. P. S., (27) vol. vi, 1837, p. 102, pl. xxiii, f. 94; Obs. Gen. Unio, (29) vol. ii, p. 162, pl. xxiii, f. 94.

L. appressa.
T. A. P. S., (51) vol. ix, 1841, p. 8; Obs. Gen. Unio, (56) vol. iv, p. 8.

L. arctica.
J. A. N. S., (243) vol. vi, 1866, p. 160, pl. xxiv, f. 75; Obs. Gen. Unio, (244) vol. xi, p. 116, pl. xxiv, f. 75.

L. bulimoides.
P. A. P. S., (39) vol. ii, 1841, p. 33; T. A. P. S., (51) vol. ix, 1841, pp. 9, 12; J. A. N. S., (243) vol. vi, 1866, pp. 162, 163; Obs. Gen. Unio, (56) vol. iv, pp. 9, 12; (244) vol. xi, pp. 118, 119.

L. casta.
P. A. N. S., (39) vol. ii, 1841, p. 33; T. A. P. S., (51) vol. ix, 1841, pp. 10, 11; Obs. Gen. Unio, (56) vol. iv, pp. 10, 11.

L. caperata.
J. A. N. S., (243) vol. vi, 1866, p. 160; Obs. Gen. Unio, (244) vol. xi, p. 116.

L. coarctata.
T. A. P. S., (51) vol. ix, 1841, pp. 11, 12; Obs. Gen. Unio, (56) vol. iv, pp. 11, 12; P. A. P. S., (39) 1841, p. 33.

L. columella.
T. A. P. S., (51) vol. ix, 1841, pp. 11, 12; Obs. Gen. Unio, (36) vol. iv, pp. 11, 12.

L. columnaris.
T. A. P. S., (81) vol. x, 1852, p. 296; Obs. Gen. Unio, (83) vol. v, p. 52.

L. curta.
P. A. P. S., (39) vol. ii, 1841, p. 33; T. A. P. S., (51) vol. ix, 1841, p. 11; J. A. N. S., (243) vol. vi, 1866, p. 162; Obs. Gen. Unio, (56) vol. iv, p. 11; (244) vol. xi, p. 119.

L. decidiosa.
T. A. P. S., (51) vol. ix, 1841, pp. 10, 11; Obs. Gen. Unio, vol. iv, pp. 10, 11.

ura elodea.
. A. P. S., (51) vol. ix, 1841, p. 9; Obs. Gen. Unio, (56) vol. iv, p. 9.
ner.
A. P. S., (39) vol. ii, 1841, p. 33; T. A. P. S., (51) vol. ix, 1841, pp. 9, 10; J. A. N. S., p. 155, 162; Obs. Gen. pp. 9, 10; (244) vol. xi, N. S., (109) vol. viii,

, 1834, p. 114, pl. xix, f. (21) vol. i, p. 226, pl.

, 1841, p. 33; T. A. P. , p. 10; Obs. Gen. Unio,

, 1841, p. 33; T. A. P. ; Obs. Gen. Unio, (56)

1858, p. 166; J. A. N. S., pp. 159, 161, pl. xxxiv, f. (244) vol. xi, pp. 115,

, 1833, p. 81, pl. xix, f. 73; (21) vol. i, p. 193, pl. xix,

vi, 1866, p. 161, pl. xxiv, Unio, (244) vol. xi, p. 117,

, 1841, p. 33; T. A. P. S., p. 12; Obs. Gen. Unio,

vi, 1866, p. 162, pl. xxiv, Unio, (244) vol. xi, p. 118,

ix, 1841, p. 13; Obs. Gen. , p. 13.

, 1841, p. 33; T. A. P. S., p. 9; J. A. N. S., (243) vol. Obs. Gen. Unio, (56) vol. xi, p. 116.

viii, 1856, p. 81; J. A. N.S., 6, pp. 155, 162; Obs. Gen. xi, pp. 111, 118.

A. P. S., (39) vol. ii, 1841, p. 33; T. A. P. S., (51) vol. ix, 1841, p. 11; Obs. Gen. Unio, (56) vol. iv, p. 11.
Philadelphica.
A. P. S., (39) vol. ii, 1841, p. 32; T. A. P. S., (51) vol. ix, 1841, p. 8; Obs. Gen. Unio, (56) vol. iv, p. 8.
ngelii.
A. N. S., (243) vol. vi, 1866, p. 160; Obs. Gen. Unio, (244) vol. xi, p. 116.

Lymnæa planulata.
P. A. P. S., (39) vol. ii, 1841, p. 33; T. A. P. S., (51) vol. ix, 1841, p. 9; Obs. Gen. Unio, (56) vol. iv, p. 9.

L. plica.
P. A. P. S., (39) vol. ii, 1841, p. 33; T. A. P. S., (51) vol. ix, 1841, pp. 8, 9, 10; J. A. N. S., (243) vol. vi, 1866, p. 162; Obs. Gen. Unio, (56) vol. iv, pp. 8, 9, 10; (244) vol. xi, p. 118.

L. proxima.
P. A. N. S., (109) vol. viii, 1856, p. 80; J. A. N. S., (243) vol. vi, 1866, p. 160, pl. xxiv, f. 74; Obs. Gen. Unio, (244) vol. xi, p. 116, pl. xxiv, f. 74.

L. reflexa.
T. A. P. S., (20) vol. v, 1834, p. 115; (51) vol. ix, 1841, p. 12; J. A. N. S., (243) vol. vi, 1866, p. 160; Obs. Gen. Unio, (21) vol. i, p. 227; (244) vol. xi, p. 116; (56) vol. iv, p. 12.

L. rubella.
P. A. P. S., (39) vol. ii, 1841, p. 33; T. A. P. S., (51) vol. ix, 1841, p. 12; Obs. Gen. Unio, (56) vol. iv, p. 12.

L. rustica.
P. A. P. S., (39) vol. ii, 1841, p. 33; T. A. P. S., (51) vol. ix, 1841, p. 10; Obs. Gen. Unio, (56) vol. iv, p. 10.

L. Smithsoniana.
J. A. N. S., (243) vol. vi, 1866, p. 161, pl. xxiv, f. 76; Obs. Gen. Unio, (244) vol. xi, p. 117, pl. xxiv, f. 76.

L. solida.
T. A. P. S., vol. vi, 1836, p. 94, pl. xxiii, f. 91; Obs. Gen. Unio, (29) vol. ii, p. 94, pl. xxiii, f. 91.

L. stagnalis.
T. A. P. S., vol. ix, 1841, p. 8; Obs. Gen. Unio, (56) vol. iv, p. 8.

L. strigosa.
P. A. P. S., (39) vol. ii, 1841, p. 33; T. A. P. S., (51) vol. ix, 1841, p. 12; Obs. Gen. Unio, (56) vol. iv, p. 12.

L. Traskii.
J. A. N. S., (243) vol. vi, 1866, pp. 161, 162; Obs. Gen. Unio, (244) vol. xi, pp. 117, 118.

L. Tryoniana.
J. A. N. S., (243) vol. vi, 1866, p. 162, pl. xxiv, f. 78; Obs. Gen. Unio, (244) vol. xi, p. 118, pl. xxiv, f. 78.

L. umbilicata.
J. A. N. S., (243) vol. vi, 1866, pp. 161, 162; Obs. Gen. Unio, (244) vol. xi, pp. 117, 118.

L. umbrosa.
J. A. N. S., (243) vol. vi, 1866, p. 159; Obs. Gen. Unio, (244) vol. xi, p. 115.

MACLURITE.
(18) Con. Geol., 1833, p. 123.

MACROLIMEN.
J. A. N. S., (214) vol. v, 1862, p. 221; Obs. Gen. Unio, (215) vol. ix, p. 43.

M. Showalterii.
J. A. N. S., (214) vol. v, 1862, p. 221; Obs. Gen. Unio, (215) vol. ix, p. 43.

MACTRA.
(18) Con. Geol., 1833, pp. 43, 44; T. A. P. S., (20) vol. v, 1834, p. 111; Obs. Gen. Unio, (21) vol. i, p. 223.

Lithasia
P. A.
S.
O.
f.
L. pern
J. A.
P.
L. pun
J. A
P.
L. purp
J. A
O.
P.
L. salebr
J. A.
O
L. semi
J. A.
L. semi
J. A
L. Shar
P. A
L. sul
P.
L. T
J
L.
L.
L. I.
Lot
Luc

Margaritana Guerayana.
T. A. P. S., (27) vol. vi, 1838, pp. 136, 149; Obs. Gen. Unio, (29) vol. ii, pp. 136, 149.

M. Hildrethiana.
J. A. N. S., (147) vol. iv, 1858, p. 49, pl. v, f. 31; (221) vol. v, 1863, p. 447; Obs. Gen. Unio, (150) vol. vi, p. 49, pl. vi, f. 31; (222) vol. x, p. 83.

M. Holgrovia.
T. A. P. S., (27) vol. vi, 1836, p. 42, pl. xiii, f. 37, 1838, pp. 136, 148; J. A. N. S., (159) vol. iv, 1859, p. 227; (213) vol. v, 1862, p. 211; (258) vol. vi, 1868, p. 327; Obs. Gen. Unio, (29) vol. ii, pp. 42, 136, 148, pl. xiii, f. 37; (170) vol. vii, p. 45; (215) vol. ix, p. 33; (259) vol. xii, p. 87.

M. margarinifera.
T. A. P. S., (27) vol. vi, 1836, p. 56, 1837, p. 97, 1838, pp. 119, 136, 148; (55) vol. x, 1845, p. 79; J. A. N. S., (159) vol. v, 1859, p. 224, pl. xxix, f. 104; (221) vol. v, 1863, pp. 422, 427, (242) vol. vi, 1866, p. 63; (243) vol. vi, 1866, p. 155; Obs. Gen. Unio, (29) vol. ii, pp. 56, 97, 119, 136, 148; (56) vol. iv, p. 79; (170) vol. vii, p. 42, pl. xxix, f. 104; (222) vol. x, pp. 58, 63; (244) vol. xi, pp. 67, 111; P. A. N. S., (109) vol. viii, 1856, p. 80; (118) vol. ix, 1857, p. 17.

M. marginata.
T. A. P. S., (27) vol. vi, 1836, pp. 54, 56, 1837, p. 97, 1838, pp. 135, 148; (57) vol. ix, 1843, p. 281; J. A. N. S., (147) vol. iv, 1858, p. 49, pl. v, f. 27; (159) vol. iv, 1859, pp. 226, 229; (213) vol. v, 1862, p. 198; (221) vol. v, 1863, p. 423, 446, 447; Obs. Gen. Unio, (29) vol. ii, p. 54, 56, 97, 135, 148; (56) vol. iv, p. 281; (150) vol. vi, p. 49, pl. v, f. 27; (170) vol. vii, pp. 44, 47; (215) vol. ix, p. 20; (222) vol. x, pp. 59, 82, 83.

M. nitair.
T. A. P. S., (55) vol. x, 1845, p. 82, pl. viii, f. 26; Obs. Gen. Unio, (56) vol. iv, p. 82, pl. viii, f. 26.

M. Nissana.
T. A. P. S., (27) vol. vi, 1838, pp. 136, 149; Obs. Gen. Unio, (29) vol. ii, pp. 136, 149.

M. Paraguayana.
T. A. P. S., (27) vol. vi, 1838, pp. 135, 149; Obs. Gen. Unio, (29) vol. ii, pp. 135, 149.

M. Parkhappii.
T. A. P. S., (27) vol. vi, 1838, pp. 136, 149; Obs. Gen. Unio, (29) vol. ii, pp. 136, 149.

M. quadrata.
P. A. N. S., (192) vol. xiii, 1861, p. 41; J. A. N. S., (213) vol. v, 1862, p. 216, pl. xxxii, f. 279; Obs. Gen. Unio, (215) vol. ix, p. 32, pl. xxxii, f. 279.

M. radiata.
T. A. P. S., (27) vol. vi, 1838, pp. 135, 148; Obs. Gen. Unio, (29) vol. ii, pp. 135, 148.

M. rugosa.
T. A. P. S., (27) vol. vi, 1838, pp. 135, 148; (43) vol. viii, 1840, p. 207, 231; J. A. N. S., (147) vol. iv, 1858, pp. 44, 45, 48, pl. v, f. 26; (221) vol. v, 1863, pp. 446, 447, 449; Obs. Gen. Unio, (29) vol. ii, pp. 135, 148; (44) vol. iii, pp. 45, 69; (150) vol. vi, pp. 44, 45, 48, pl. v, f. 26; (222) vol. x, pp. 82, 83, 85.

Margaritana Raveneliana.
T. A. P. S., (20) vol. v, 1834, p. 106, pl. xvii, f. 50; (27) vol. vi, 1836, p. 42; 1838, pp. 135, 148; Obs. Gen. Unio, (21) vol. i, p. 218, pl. xvii, f. 50; (29) vol. ii, pp. 42, 135, 148.

M. Spillmanii.
P. A. N. S., (142) vol. x, 1858, p. 138; J. A. N. S., (203) vol. v, 1861, p. 105, pl. xvii, f. 252; (274) vol. viii, 1874, p. 69, pl. xxi, f. 35; Obs. Gen. Unio (205) vol. viii, p. 109, pl. xvii, f. 252; (275) vol. xiii, p. 73, pl. xxi. f. 15.

M. Tombecbeensis.
P. A. N. S., (142) vol. x, 1858, p. 138.

M. Tombigbeénsis.
J. A. N. S., (203) vol. v, 1861, p. 107, pl. xviii, f. 255; Obs. Gen. Unio, (205) vol. viii, p. 111, pl. xviii, f. 255.

M. triangulata.
P. A. N. S., (142) vol. x, 1858, p. 138; J. A. N. S., (147) vol. iv, 1858, p. 49, pl. v, f. 28; (159) vol. iv, 1859, p. 228, pl. xxxii, f. 111; Obs. Gen. Unio, (150) vol. vi, p. 49, pl. v, f. 28; (170) vol. vii, p. 46, pl. xxxii, f. 111.

M. undulata.
T. A. P. S., (27) vol. vi, 1836, pp. 54, 55, 56, 1838, pp. 135, 148; J. A. N. S., (159) vol. iv, 1859, p. 229; P. A. N. S., (66) vol. ii, 1851, p. 192; Obs. Gen. Unio, (29) vol. ii, pp. 54, 55, 56, 135, 148; (170) vol. vii, p. 47.

M. Vondenbuschiana.
P. A. P. S., (35) vol. i, 1840, p. 288; T. A. P. S., (43) vol. viii, 1840, p. 222, pl. xviii, f. 39; P. Z. S. Lond., (60) vol. xviii, 1850, p. 199; Obs. Unio, (44) vol. iii, p. 60, pl. xviii, f. 39.

M. Yubœnsis.
P. A. N. S., (109) vol. viii, 1856, p. 80.

MARGARITIFERA.
T. A. P. S., (27) vol. vi, 1838, p. 117; Obs. Gen. Unio, (29) vol. ii, p. 117.

MARGINELLA.
(18) Con. Geol., 1833, p. 180.

M. anatina.
(18) Con. Geol., 1833, pp. 176, 177, pl. vi, f. 186.

M. biplicata.
(18) Con. Geol., 1833, p. 201, pl. vi, f. 216.

M. columba.
(18) Con. Geol., 1833, p. 177, pl. vi, f. 187.

M. crassilabra.
(18) Con. Geol., 1833, p. 177, pl. vi, f. 188.

M. incurva.
(18) Con. Geol., 1833, p. 179, pl. vi, f. 192.

M. ovata.
(18) Con. Geol., 1833, p. 179, pl. vi, f. 191.

M. plicata.
(18) Con. Geol., 1833, p. 178, pl. vi, f. 189.

M. semen.
(18) Con. Geol., 1833, p. 178, pl. vi, f. 190.

MEGASPIRA.
T. A. P. S., (27) vol. vi, 1835, p. 21; Obs. Gen. Unio, (29) vol, ii, p. 21.

M. Ruschenbergiana.
T. A. P. S., (27) vol. vi, 1835, p. 21, pl. xxiii, f. 101; Obs. Gen. Unio, (29) vol. ii, p. 21, pl. xxiii, f. 101.

Megasystropha Newberryi.
J. A. N. S., (243) vol. vi, 1866, p. 153, xxiii, f. 68; Obs. Gen. Unio, (244) vol. xi, p. 109, pl. xxiii, f. 68.

Goniobasis porrecta.
J. A. N. S., (243) vol. vi, 1866, pl. xxiii, f. 47; Obs Gen. Unio, (244) vol xi, p. 95, pl. xxiii, f. 47.

G. Postellii.
J. A. N. S., (214) vol. v, 1862, p. 343, pl. xxxviii, f. 208; Obs. Gen. Unio, (215) vol. ix, p. 165, pl. xxxviii, f. 208.

G. Prairiensis.
J. A. N. S., (214) vol. v, 1862, p. 299; pl. xxxvii, f. 132; Obs. Gen. Unio, (215) vol. ix, p. 121, pl. xxxvii, f. 132.

G. Prestoniana.
J. A. N. S., (243) vol. vi, 1866, p. 137; Obs. Gen. Unio, (244) vol. xi, p. 93.

G. proletaria.
J. A. N. S., (214) vol. v, 1862, p. 325, pl. xxxviii, f. 177; Obs. Gen. Unio, (215) vol. ix, p. 147, pl. xxxviii, f. 177.

G. propinqua.
J. A. N. S., (214) vol. v, 1862, p. 234, pl. xxxiv, f. 29; Obs. Gen. Unio, (215) vol. ix, p. 56, pl. xxxiv, f. 29.

G. propria.
J. A. N. S., (214) vol. v, 1862, p. 229, pl. xxxiv, f. 21; Obs. Gen. Unio, (215) vol. ix, p. 51, pl. xxxiv, f. 21.

G. proxima.
J. A. N. S., (214) vol. v, 1862, pp. 334, 336, 353; Obs. Gen. Unio, (215) vol. ix, pp. 156, 158, 175.

G. pudica.
J. A. N. S., (214) vol. v, 1862, p. 222, pl. xxxiv, f. 7; Obs. Gen. Unio, (215) vol. ix, p. 44, pl. xxxiv, f. 7.

G. pulla.
J. A. N. S., (243) vol. vi, 1866, p. 130, pl. xxiii, f. 32; Obs. Gen. Unio, (244) vol. xi, p. 86, pl. xxiii, f. 32.

G. punicea.
J. A. N. S., (214) vol. v, 1862, pp. 230, 232, pl. xxxiv, f. 27; Obs. Gen. Unio, (215) vol. ix, pp. 52, 54, pl. xxxiv, f. 27.

G. pupæformis.
J. A. N. S., (243) vol. vi, 1866, p. 130, pl. xxiii, f. 31; Obs. Gen. Unio, (244) vol. xi, p. 86, pl. xxiii, f. 31.

G. pupoidea.
J. A. N. S., (214) vol. v, 1862, p. 234; (243) vol. vi, 1866, p. 130; Obs. Gen. Unio, (215) vol. ix, p. 56; (244) vol. xi, p. 86.

G. purpurea.
J. A. N. S., (214) vol. v, 1862, p. 225, pl. xxxiv, f. 12; Obs. Gen. Unio, (215) vol. ix, p. 47, pl. xxxiv, f. 12.

G. purpurella.
J. A. N. S., (214) vol. v, 1862, p. 327, pl. xxxviii, f. 183; Obs. Gen. Unio, (215) vol. ix, p. 149, pl. xxxviii, f. 183.

G. Pybasii.
J. A. N. S., (214) vol. v, 1862, pp. 313, 314, pl. xxxvii, f. 157; Obs. Gen. Unio, (215) vol. ix, pp. 135, 136, pl. xxxvii, f. 157.

G. quadricincta.
J. A. N. S., (243) vol. vi, 1866, p. 131, pl. xxiii, f. 33; Obs. Gen. Unio, (244) vol. xi, p. 87, pl. xxiii, f. 33.

Goniobasis quadrivittata.
J. A. N. S., (214) vol. v, 1862, p. 226; Obs. G[illegible] Unio, (215) vol. ix, p. 48, pl. xxxiv, f. [illegible]

G. rara.
J. A. N. S., (214) vol. v, 1862, p. 220, pl. x[illegible] f. 3; Obs. Gen. Unio, (215) vol. ix, p[illegible] pl. xxxiv, f. 3.

G. rhombica.
J. A. N. S., (214) vol. v, 1862, p. 244; (24[illegible] vi, 1866, pp. 130, 132; Obs. Gen. Unio, [illegible] vol. ix, p. 66; (244) vol. xi, pp. 88, 8[illegible]

G. robusta.
J. A. N. S., (214) vol. v, 1862, p. 229; [illegible] Gen. Unio, (215) vol. ix, p. 61.

G. Romæ.
J. A. N. S., (243) vol. vi, 1866, p. 129, pl. [illegible] f. 30; Obs. Gen. Unio, (244) vol. xi, p[illegible] pl. xxxiii, f. 30.

G. rubella.
J. A. N. S., (214) vol. v., 1862, p. 332, pl. xxx[illegible] f. 191; (243) vol. vi, 1866, p. 138; Obs. [illegible] Unio, (215) vol. ix, p. 154, pl. xxxvii[illegible] 191; (244) vol. xi, p. 94.

G. rubicunda.
J. A. N. S., (214) vol. v, 1862, 235, pl. x[illegible] f. 32; Obs. Gen. Unio, (215) vol. ix, p[illegible] pl. xxxiv, f. 32.

G. rubiginosa.
J. A. N. S., (214) vol. v, 1863, p. 323, xxxviii, f. 193; Obs. Gen. Unio, (215) [illegible] ix, p. 155, pl. xxxviii, f. 193.

G. rubricata.
J. A. N. S., (214) vol. v, 1862, p. 325, pl. xxx[illegible] f. 197; Obs. Gen. Unio, (215) vol. ix, p[illegible] pl. xxxviii, f. 197.

G. rufescens.
J. A. N. S., (214) vol. v, 1862, p. 228; Obs. [illegible] Unio, (215) vol. ix, p. 150.

G. Saffordii.
J. A. N. S., (214) 1862, p. 330; Obs. Gen. [illegible] (215) vol. ix, p. 152.

G. sculptilis.
J. A. N. S., (243) vol. vi, 1866, p. 148; Ob[illegible] Gen. Unio, (244) vol. xi, p. 104.

G. Sellersiana.
J. A. N. S., (214) vol. v, 1862, p. 328; Obs. Ge[illegible] Unio, (215) vol. ix, p. 150.

G. Shastaensis.
J. A. N. S., (214) vol. v, 1862, p. 337, pl. xxxvi[illegible] f. 199; Obs. Gen. Unio, (215) vol. ix, p. 13[illegible] pl. xxxviii, f. 199.

G. Shelbyensis.
J. A. N. S., (214) vol. v, 1862, p. 228, pl. xxxiv f. 18; Obs. Gen. Unio, (215) vol. ix, p. 5[illegible] pl. xxxiv, fig. 18.

G. Showalterii.
J. A. N. S., (214) vol. v, 1862, pp. 220, 227, p[illegible] xxxiv, f. 4; Obs. Gen. Unio, (215) vol. ix pp. 42, 59, pl. xxxiv, f. 4.

G. similis.
J. A. N. S., (258) vol. vi, 1868, p. 328, pl. liv, f. [illegible] Obs. Gen. Unio, (259) vol. xii, p. 88, pl. liv, f. [illegible]

G. Smithsoniana.
J. A. N. S., (243) vol. vi, 1866, p. 137, pl. xxii[illegible] f. 44; Obs. Gen. Unio, (244) vol. xi, p. [illegible] pl. xxii, f. 44.

...ites.

... (214) vol. v, 1862, p. 239; Obs. Gen. ... (215) vol. ix, p. 61; P. A. N. S., (198) ... xiii, 1861, p. 118.

... (37) vol. ii, 1841, p. 15; T. A. P. S., ... vol. viii, 1841, p. 189, pl. vi, f. 56; J. A. ... S., (214) vol. v, 1862, p. 343; Obs. Gen. ... (44) vol. iii, p. 27, pl. vi, f. 56; (215) ... ix, p. 165.

...ii.

... Gen. Geol., 1833, p. 100.

...ata.

... P. S., (51) vol. ix, 1842, p. 26; (55) vol. ... 1845, pp. 83, 84; J. A. N. S., (214) vol. v, ... 1862, pp. 269, 278, 279, 284, 285, 291, 292, 294; Obs. Gen. Unio, (56) vol. iv, pp. 26, 83, 84; ... vol. ix, pp. 91, 100, 101, 106, 107, 113, ... 6.

...

P. Z. ... London, (59) vol. xviii, 1850, p. 180; J. ... N. S., (243) vol. vi, 1866, p. 122; Obs. ... Unio, (244) vol. xi, p. 78.

M. ...

P. A. ... N. S., (198) vol. xiii, 1861, p. 122; J. A. N. S., (214) vol. v, 1862, pp. 236, 241; Obs. Gen. Unio, (215) vol ix, pp. 58, 66.

M. carino-costata.

T. A. P. S., (55) vol. x, 1845, p. 88, pl. ix, f. 40; Obs. Gen. Unio, (56) vol. iv, p. 88, pl. ix, f. 40.

M. carneola.

J. A. N. S., (214) vol. v, 1862, p. 308; Obs. Gen. Unio, (215) vol. ix, p. 130.

M. castanea.

P. A. P. S., (37) vol. ii, 1841, p. 11; T. A. P. S., (43) vol. viii, 1841, p. 164, pl. v, f. 2; J. A. N. S., (214) vol. v, 1862, p. 323; Obs. Gen. Unio, (44) vol. iii, p. 2, pl. v, f. 2; (215) vol. ix, p. 145.

M. catenaria.

P. A. P. S., (35) vol. i, 1840, p. 289; T. A. P. S., (43) vol. viii, 1841, p. 190; Obs. Gen. Unio, (44) vol. iii, p. 28.

M. cateneides.

T. A. P. S., (43) vol. viii, 1840, p. 228, pl. vi, f. 60; Obs. Gen. Unio, (44) vol. iii, p. 66, pl. vi, f. 60.

M. Cincinnatiensis.

P. A. P. S., (30) vol. i, 1838, p. 66; T. A. P. S., (43) vol. viii, 1838, p. 190, pl. vi, f. 58; Obs. Gen. Unio, (44) vol. iii, p. 28, pl. vi, f. 58.

M. cincta.

P. Z. S., London, (59) vol. xviii, 1850, p. 183.

M. circincta.

P. A. P. S., (37) vol. ii, 1841, p. 15; T. A. P. S., (43) vol. viii, 1841, p. 187, pl. vi, f. 51; Obs. Gen. Unio, (44) vol. iii, p. 25, pl. vi, f. 25.

M. Clarkii.

P. A. P. S., (94) vol. v, 1852, p. 252; T. A. P. S., (81) vol. x, 1852, p. 297, pl. xxx, f. 4; Obs. Gen. Unio, (83) vol. v, p. 53, pl. xxx, f. 4.

M. clausa.

P. A. N. S., (198) vol. xiii, 1861, p. 120; J. A. N. S., (214) vol. v, 1862, p. 232; Obs. Gen. Unio, (215) vol. ix, p. 54.

M. clavæformis.

P. A. P. S., (37) vol. ii, 1841, p. 12; T. A. P. S., (43) vol. viii, 1841, pp. 164, 168, pl. v Obs. Gen. Unio, (44) vol. iii, pp. 2, 6, ...

Melania dubiosa.

P. A. P. S., (43) vol. viii, 1841, p. 166, pl. v, f. 6; Obs. Gen. Unio, (44) vol. iii, p. 4, pl. v, f. 6; (215) vol. ix, pp. 99, 121; J. A. N. S., (214) vol. v, 1862, pp. 277, 299.

Dreissenina.

P. A. P. S., (37) vol. ii, 1841, p. 15; T. A. P. S., (43) vol. viii, 1841, pp. 171, 188, pl. vi, f. 54; J. A. N. S., (214) vol. v, 1862, pp. 259, 314; Obs. Gen. Unio, (44) vol. iii, pp. 9, 26, pl. vi, f. 54; (215) vol. ix, pp. 81, 136.

[illegible]

P. A. P. S., (37) vol. ii, 1841, p. 12; T. A. P. S., (43) vol. viii, 1841, p. 166, pl. v, f. 7; (51) vol. ix, 1841, p. 19; Obs. Gen. Unio, (44) vol. iii, p. 4, pl. v, f. 7; (56) vol. iv, p. 19.

[illegible]iana.

P. A. P. S., (37) vol. ii, 1841, p. 14; T. A. P. S., (43) vol. viii, 1841, p. 180, pl. vi, f. 37; J. A. N. S., (214) vol. v, 1862, pp. 318, 321; Obs. Gen. Unio, (44) vol. iii, p. 18, pl. vi, f. 37; (215) vol. ix, pp. 140, 143.

[illegible]ata.

T. A. P. S., (55) vol. x, 1845, p. 89; Obs. Gen. Unio, (56) vol. iv, p. 89.

[illegible]tica.

P. A. N. S., (198) vol. xiii, 1861, p. 118; J. A. N. S., (214) vol. v, 1862, pp. 226, 312; Obs. Gen. Unio, (215) vol. ix, pp. 48, 134.

[illegible]ata.

T. A. P. S., (15) vol. iv, 1831, p. 120, pl. xv, f. 29; J. A. N. S., (214) vol. v, 1866, pp. 148, 287; Obs. Gen. Unio, (21) vol. i, p. 130, pl. xv, f. 29; (215) vol. ix, p. 109; (244) vol. xi, p. 104.

[illegible]polis.

P. Z. S., London, (59) vol. xviii, p. 184.

[illegible]ata.

P. A. P. S., (37) vol. ii, 1841, p. 14; (48) vol. ii, 1842, p. 242; T. A. P. S., (43) vol. viii, 1841, p. 183, pl. vi, f. 44; (51) vol. ix, 1842, p. 24; Obs. Gen. Unio, (44) vol. iii, p. 21, pl. vi, f. 44; (56) vol. iv, p. 24.

M. [illegible]ata.

P. A. P. S., (48) vol. ii, 1842, p. 242; T. A. P. S., (51) vol. ix, 1842, pp. 25, 29; (55) vol. x, 1845, p. 92; Obs. Gen. Unio, (56) vol. iv, pp. 25, 29, 92.

M. excurata.

T. A. P. S., (55) vol. x. 1845, p. 92; Obs. Gen. Unio, (56) vol. iv, p. 92.

M. expansa.

P. A. P. S., (48) vol. ii, 1842, p. 243; T. A. P. S., (51) vol. ix, 1842, p. 28; Obs. Gen. Unio, (56) vol. iv, p. 28.

M. fallax.

P. A. N. S., (198) vol. xiii, 1861, p. 120; J. A. N. S., (214) vol. v, 1862, p. 231; Obs. Gen. Unio, (215) vol. ix, p. 53.

M. fasciata.

P. A. N. S., (198) vol. xiii, 1861, p. 119.

M. fasciolata.

J. A. N. S., (243) vol. vi, 1866, pp. 122, 125; Obs. Gen. Unio, (244) vol. xi, pp. 78, 81.

M. ferruginea.

P. Z. S., London, (59) vol. xviii, 1850, p. 182.

Melania figurata.

J. A. N. S., (243) vol. vi, 1866, p. 125; Obs. Gen. Unio, (244) vol. xi, p. 81.

M. filum.

T. A. P. S., (55) vol. x, 1845, p. 88, pl. ix, f. 41; J. A. N. S., (214) vol. v, 1862, p. 284; Obs. Gen. Unio, (56) vol. iv, p. 88, pl. ix, f. 41; (215) vol. ix, p. 106.

M. flamigera.

J. A. N. S., (243) vol. vi, 1866, p. 125; Obs. Gen. Unio, (244) vol. xi, p. 81.

M. flammulata.

P. Z. S., London, (59) vol. xviii, 1850, p. 189.

M. Florentiana.

P. A. P. S., (37) vol. ii, 1841, p. 15; T. A. P. S (43) vol. viii, 1841, p. 188, pl. vi, f. 53; J. A. N. S., (214) vol. v, 1862, p. 260; Obs. Gen Unio, (44) vol. iii, p. 26, pl. vi, f. 53; (215) vol. ix, p. 82.

M. fæda.

P. Z. S., London, (59) vol. xviii, 1850, p. 180.

M. Foremanii.

P. A. P. S., (48) vol. ii, 1842, p. 242; T. A. P. S., (51) vol. ix, 1842, p. 27; Obs. Gen. Unio, (56) vol. iv, p. 27.

M. fraterna.

P. A. N. S., (114) vol. viii, 1856, p. 144; J. A. N. S., (243) vol. vi, 1866, p. 128, pl. xxii, f. 28; Obs. Gen. Unio, (244) vol. xi, p. 84, pl. xxii, f. 28.

M. fuliginosa.

P. A. P. S., (37) vol. ii, 1841, p. 12; T. A. P. S., (43) vol. viii, 1841, p. 170, pl. v, f. 17; J. A. N. S., (214) vol. v, 1862, p. 225; Obs. Gen. Unio, (44) vol. iii, p. 8, pl. v, f. 17; (215) vol. ix, p. 47.

M. fumea.

P. A. N. S., (198) vol. xiii, 1861, p. 123; J. A. N. S., (214) vol. v, 1862, p. 222; Obs. Gen. Unio, (215) vol. ix, p. 44.

M. furvà.

P. A. P. S., (94) vol. v, 1852, p. 252; T. A. P. S., (81) vol. x, 1852, p. 299, pl. xxx, f. 7; Obs. Gen. Unio, (83) vol. v, p. 55, pl. xxx, f. 7.

M. fusiformis.

P. A. P. S., (37) vol. ii, 1841, p. 12; T. A. P. S., (43) vol. viii, 1841, pp. 164, 167, pl. v, f. 9; (81) vol. x, 1852, p. 302; J. A. N. S., (214) vol. v, 1862, pp. 308, 311; Obs. Gen. Unio, (44) vol. iii, pp. 2, 5, pl. v, f. 9; (83) vol. v, p. 58; (215) vol. ix, pp. 130, 133.

M. germana.

J. A. N. S., (214) vol. v, 1862, p. 223; (243) vol. vi, 1866, p. 153; Obs. Gen. Unio, (215) vol. ix, p. 45; (244) vol. xi, p. 109.

M. gibberosa.

J. A. N. S., (243) vol. vi, 1866, p. 150; Obs. Gen. Unio, (244) vol. xi, p. 106.

M. gibbosa.

P. A. P. S., (94) vol. v, 1852, p. 252; T. A. P. S., (81) vol. x, 1852, p. 301, pl. xxx, f. 12; Obs. Gen. Unio, (83) vol. v, p. 57, pl. xxx, f. 12.

M. glabra.

P. A. P. S., (40) vol. ii, 1841, p. 82; T. A. P. S., (51) vol. ix, 1841, p. 18; J. A. N. S., (243) vol. vi, 1866, p. 134; Obs. Gen. Unio, (56) vol. iv, p. 18; (244) vol. xi, p. 90.

Melania [illegible].
P. A. N. S. [illegible] vol. xiii. 1861. p. 120; J. A. N. S. [illegible] 1862. p. 226; Obs. Gen. Unio. [illegible] p. 48.

M. [illegible].
P. A. P. S. [illegible] vol. ii. 1841. p. 12; T. A. P. S. [illegible] vol. viii. 1842. p. 174. pl. v. f. 22; Obs. Gen. Unio. [illegible] vol. iii. p. 12. pl. v. f. 22.

M. [illegible].
P. A. N. S. [illegible] vol. xiii. 1861. p. 118; J. A. N. S. [illegible] vol. v. 1862. pp. 235, 309; Obs. Gen. Unio. [illegible] vol. ix. pp. 77, 122.

M. [illegible].
P. A. P. S. [illegible] vol. ii. 1841. p. 12; T. A. P. S. [illegible] 1842. p. 168. pl. v. f. 11; Obs. Gen. Unio. [illegible] vol. iii. p. 6. pl. iii. f. 11 [illegible] vol. ix. pp. 102, 125, 128; J. A. N. S. [illegible] 1862. pp. 280, 303, 311.

M. [illegible].
P. Z. S. London. [illegible] vol. xviii. 1850. p. 196.

M. [illegible].
J. A. N. S. [illegible] vol. v. 1862. pp. 299, 301, 302 [illegible] Gen. Unio. [illegible] vol. ix. pp. [illegible]

M. [illegible]
[illegible] xiii. 1861. p. 122; J. A. N. S. [illegible] 1862. p. 241; Obs. Gen. Unio. [illegible]

M. [illegible]
J. A. N. S. [illegible] 1862. p. 305; Obs. Gen. Unio. [illegible]

M. [illegible]
[illegible]

Melania [illegible].
P. A. N. S. [illegible] J. A. N. S. [illegible] Obs. Gen. Unio. [illegible] f. 22.

M. Hyden.
J. A. N. S. [illegible] Unio. [illegible]

M. impressa.
P. A. P. S. [illegible] J. A. N. S. [illegible] Obs. Gen. Unio. [illegible] vol. ix. pp. [illegible]

M. impura.
P. Z. S. London. [illegible]

M. [illegible].
P. Z. S. London. [illegible]

M. inflata.
T. A. P. S. [illegible]

M. [illegible].
J. A. N. S. [illegible] Gen. Unio. [illegible]

M. [illegible].
J. A. N. S. [illegible] Unio. [illegible]

M. [illegible].
T. A. P. S. [illegible] Unio. [illegible]

M. [illegible]
J. A. N. S. [illegible]

[illegible] vol. ix, p. 135.

Melania Lergillierti.
J. A. N. S., (243) vol. vi, 1866, pp. 127, 128; Obs. Gen. Unio, (244) vol. xi, pp. 83, 84.

M. lateritia.
P. Z. S., London, (59) vol. xviii, 1850, p. 196; J. A. N. S., (243) vol. vi, 1866, p. 123; Obs. Gen. Unio, (244) vol. xi, p. 79.

M. Lecontiana.
P. A. P. S., (37) vol. ii, 1841, p. 13; T. A. P. S., (43) vol. viii, 1841, p. 177, pl. v, f. 29; J. A. N. S., (214) vol. v, 1862, p. 331; Obs. Gen. Unio, (44) vol. iii, p. 15, pl. v, f. 29; (215) vol. ix, p. 153.

M. Lewisii.
P. A. N. S., (198) vol. xiii, 1861, p. 118; J. A. N. S., (214) vol. v, 1862, p. 243; Obs. Gen. Unio, (215) vol. ix, p. 65.

M. ligata.
J. A. N. S., (214) vol. v, 1862, p. 289; Obs. Gen. Unio, (215) vol. ix, p. 111.

M. lilia.
P. A. N. S., (198) vol. xiii, 1861, p. 121; J. A. N. S., (214) vol. v, 1862, p. 240; Obs. Gen. Unio, (215) vol. ix, p. 62.

M. lineola.
P. A. N. S., (198) vol. xiii, 1861, p. 119.

M. lugubris.
T. A. P. S., (55) vol. x, 1845, p. 84, pl. ix, f. 29; Obs. Gen. Unio, (56) vol. iv, p. 84, pl. ix, f. 29.

M. Luzoniensis.
P. Z. S. London, (59) vol. xviii, 1850, p. 188.

M. lyraeformis.
P. A. N. S., (144) vol. viii, 1856, p. 145; J. A. N. S., (243) vol. vi, 1866, p. 126, pl. xxii, f. 25; Obs. Gen. Unio, (244) vol. xi, p. 82, pl. xxii, f. 25.

M. Manillaensis.
J. A. N. S., (243) vol. vi, 1866, p. 126, pl. xxii, f. 24; Obs. Gen. Unio, (244) vol. xi, p. 82, pl. xxii, f. 24.

M. Mauiensis.
P. A. N. S., (144) vol. viii, 1856, p. 145; J. A. N. S., (243) vol. vi, 1866, p. 123, pl. xxii, f. 19; Obs. Gen. Unio, (244) vol. xi, p. 79, pl. xxii, f. 19.

M. maxima.
P. Z. S., London, (59) vol. xviii, 1850, p. 187.

M. melleo.
P. A. N. S., (198) vol. xiii, 1861, p. 120; J. A. N. S., (214) vol. v, 1862, pp. 224, 305; Obs. Gen. Unio, (215) vol. ix, pp. 46, 127.

M. Menkiana.
P. A. P. S., (48) vol. ii, 1842, p. 242; T. A. P. S., (51) vol. ix, 1842, p. 24; Obs. Gen. Unio, (56) vol. iv, p. 24.

M. microstoma.
P. Z. S., London, (59) vol. xviii, 1850, pp. 186, 187; T. A. P. S., (81) vol. x, 1852, p. 295; Obs. Gen. Unio, (83) vol. v, p. 51.

M. midas.
P. A. N. S., (198) vol. xiii, 1861, p. 119; J. A. N. S., (214) vol. v, 1862, p. 233; (243) vol. vi, 1866, p. 150; Obs. Gen. Unio, (215) vol. ix, p. 55; (244) vol. xi, p. 106.

Melania Mindoriensis.
P. Z. S., London, (59) vol. xviii, 1850, p. 187; J. A. N. S., (243) vol. vi, 1866, p. 123; Obs. Gen. Unio, (244) vol. xi, p. 79.

M. modesta.
T. A. P. S., (55) vol. x, 1845, p. 86, pl. ix, f. 34; J. A. N. S., (214) vol. v, 1862, p. 277; Obs. Gen. Unio, (56) vol. iv, p. 86, (215) vol. ix, p. 99.

M. modicella.
P. Z. S., London, (59) vol. xviii, 1850, p. 196.

M. monozonalis.
P. A. P. S., (37) vol. ii, 1841, p. 13; T. A. P. S., (43) vol. viii, 1841, p. 178, pl. vi, f. 31; Obs. Gen. Unio, (44) vol. iii, p. 16, pl. vi, f. 31.

M. mucronata.
P. A. N. S., (198) vol. xiii, 1861, p. 119; J. A. N. S., (214) vol. v, 1862, p. 277; Obs. Gen. Unio, (215) vol. ix, p. 99.

M. multilineata.
T. A. P. S., (27) vol. vi, 1836, p. 93; Obs. Gen. Unio, (29) vol. ii, p. 93.

M. multistriata.
T. A. P. S., (55) vol. x, 1845, p. 90; Obs. Gen. Unio, (56) vol. iv, p. 90.

M. Myersiana.
P. A. N. S., (144) vol. viii, 1856, p. 145; J. A. N. S., (243) vol. vi, 1866, pp. 124, 126, 127; pl. xxii, f. 21; Obs. Gen. Unio, (244) vol. xi, pp. 80, 81, 82, pl. xxii, f. 21.

M. nana.
P. Z. S. Lond., (59) vol. xviii, 1850, p. 192.

M. nassula.
T. A. P. S., (43) vol. viii, 1841, p. 190; Obs. Gen. Unio, (44) vol. iii, p. 28.

M. neglecta.
J. A. N. S., (214) vol. v, 1862, p. 273; Obs. Gen. Unio, (215) vol. ix, p. 95.

M. Newberryi.
P. A. N. S., (178) vol. xii, 1860, p. 93; J. A. N. S., (214) vol. v, 1862, p. 318; Obs. Gen. Unio, (215) vol. ix, p. 140.

M. Newcombii.
P. A. N. S., (144) vol. viii, 1856, p. 145; J. A. N. S., (243) vol. vi, 1866, pp. 122, 123, pl. xxii, f. 17; Obs. Gen. Unio, vol. xi, pp. 78, 79, pl. xxii, f. 17.

M. Niagarensis.
P. A. P. S., (37) vol. ii, 1841, p. 12; T. A. P. S., (43) vol. viii, 1841, p. 173, pl. v, f. 21; J. A. N. S., (214) vol. v, 1862, pp. 276, 307; (243) vol. vi, 1866, p. 135; Obs. Gen. Unio, (44) vol. iii, p. 11; (215) vol. ix, pp. 98, 129; (244) vol. xi, p. 91.

M. Nickliniana.
P. A. P. S., (37) vol. ii, 1841, p. 12; T. A. P. S., (43) vol. viii, 1841, p. 171, pl. v, f. 18; (55) vol. x, 1845, p. 85; (81) vol. x, 1852, p. 299; J. A. N. S., (214) vol. v, 1862, p. 309; (243) vol. vi, 1866, p. 137; Obs. Gen. Unio, (44) vol. iii, p. 9, pl. v, f. 18; (56) vol. iv, p. 85. (83) vol. v, p. 55; (215) vol. ix, p. 131; (244) vol. xi, p. 93.

M. nigrina.
P. A. N. S., (109) vol. viii, 1856, p. 80; J. A. N. S., (214) vol. v, 1862, pp. 300, 334; Obs. Gen. Unio, (215) vol. ix, pp. 122, 156.

Melania Ningpoensis.
P. A. N. S., (144) vol. viii, 1856, p. 144; J. A. N. S., (243) vol. vi, 1866, p. 124, pl. xxii, f. 20; Obs. Gen. Unio, (244) vol. xi, p. 80, pl. xxii, f. 20.

M. nitens.
T. A. P. S., (43) vol. viii, 1841, p. 182, pl. vi, f. 40; J. A. N. S., (214) vol. v, 1862, p. 304; Obs. Gen. Unio, (44) vol. iii, p. 20, pl. vi, f. 40; (215) vol. ix, p. 126.

M. nitida.
P. A. P. S., (37) vol. ii, 1841, p. 14.

M. nobilis.
T. A. P. S., (55) vol. x, 1845, p. 91, pl. ix, f. 48; J. A. N. S., (214) vol. v, 1862, p. 346; Obs. Gen. Unio, (56) vol. iv, p. 91, pl. ix, f. 48; (215) vol. ix, p. 168.

M. nodulosa.
P. A. P. S., (37) vol. ii, 1841, p. 15; T. A. P. S., (43) vol. viii, 1841, p. 190, pl. vi, f. 57; Obs. Gen. Unio, (44) vol. iii, p. 28, pl. vi, f. 57.

M. nubila.
P. A. N. S., (198) vol. xiii, 1861, p. 118; J. A. N. S., (214) vol. v, 1862, p. 236; Obs. Gen. Unio, (215) vol. ix, p. 58.

M. oblita.
P. A. P. S., (94) vol. v, 1852, p. 252. T. A. P. S., (81) vol. x, 1852, p. 298, pl. xxx, f. 6; Obs. Gen. Unio, (83) vol. v, p. 54, pl. xxx, f. 6.

M. obovata.
J. A. N. S., (214) vol. v, 1862, pp. 257, 263; Obs. Gen. Unio, (215) vol. ix, pp. 79, 85.

M. obruta.
P. Z. S., London, (59) vol. xviii, 1850, p. 190.

M. obtusa.
P. A. P. S., (37) vol. ii, 1841, p. 13; T. A. P. S., (43) vol. viii, 1841, p. 176, pl. v, f. 28; J. A. N. S., (243) vol. vi, 1866, p. 138; Obs. Gen. Unio, (44) vol. iii, p. 14, pl. v, f. 28; (244) vol. xi, p. 94.

M. occata.
P. A. N. S., (109) vol. viii, 1856, p. 81; J. A. N. S., (243) vol. vi, 1866, p. 155; Obs. Gen. Unio, (244) vol. xi, p. 111.

M. occidentalis.
P. A. P. S., (37) vol. ii, 1841, p. 12; T. A. P. S., (43) vol. viii, 1841, p. 172, pl. v, f. 20; Obs. Gen. Unio, (44) vol. iii, p. 10, pl. v, f. 20.

M. Ocoéensis.
P. A. P. S., (37) vol. ii, 1841, p. 12; T. A. P. S., (43) vol. viii, 1841, pp. 169, 170, pl. v, f. 13; (81) vol. x, 1852, p. 298; J. A. N. S., (214) vol. v, 1862, pp. 277, 290; Obs. Gen. Unio, (44) vol. iii, pp. 7, 8, pl. v, f. 13; (83) vol. v, p. 54; (215) vol. ix, pp. 99, 112.

M. oliva.
P. A. P. S., (48) vol. ii, 1842, p. 242; T. A. P. S., (51) vol. ix, 1842, p. 27; Obs. Gen. Unio, (56) vol. iv, p. 27.

M. olivula.
T. A. P. S., (43) vol. viii, 1841, p. 188; J. A. N. S., (214) vol. v, 1862, p. 227; Obs. Gen. Unio, (44) vol. iii, p. 26; (215) vol. ix, p. 49.

M. oppugnata.
P. A. P. S., (94) vol. v, 1852, p. 252; T. A. P. S., (81) vol. x, 1852, p. 300, pl. xxx, f. 9; Obs. Gen. Unio, (83) vol. v, p. 56, pl. xxx, f. 9; (215) vol. ix, p. 55.

Melania orbicula.
P. A. N. S., (198) vol. xiii, 1861, p.
S., (214) vol. v, 1862, p. 238; Ob
215, vol. ix, p. 60.

M. Ordiana.
P. A. P. S., (48) vol. ii, 1842, p. 24
(51) vol. ix, 1842, p. 26; Obs. G
vol. iv, p. 26.

M. Ordii.
P. A. P. S., (214) vol. v, 1862, p. 2
Unio, (215) vol. ix, p. 115.

M. ovalis.
P. A. P. S., (48) vol. ii, 1842, p. 24
(51) vol. ix, 1842, p. 25; J. A
vol. v, 1862, pp. 226, 229, 23
Unio, (56) vol. iv, p. 25; (21
48, 51, 61.

M. ovoidea.
T. A. P. S., (55) vol. x, 1845, p. 87,
A. N. S., (214) vol. v, 1862, p. 3
Unio, (56) vol. iv, p. 87, pl. i
vol. ix, p. 130.

M. pagoda.
P. Z. S. Lond., (59) vol. xviii, 18

M. pallescens.
T. A. P. S., (55) vol. x, 1845, p. 89
J. A. N. S., (243) vol. vi, 1866
Gen. Unio, (56) vol. iv, p. 89
(244) vol. xi, p. 86.

M. paula.
P. A. N. S., (198) vol. xiii, 1861, p.
S., (214) vol. v, 1862, p. 24
Unio, (215) vol. ix, p. 66.

M. percarinata.
T. A. P. S., (81) vol. x, 1852, p. 29
Unio, (83) vol. v, p. 55.

M. perfusca.
P. A. P. S., (40) vol. ii, 1841, p. 82
(51) vol. ix, 1841, p. 18; J. A
vol. v. 1862, pp. 304, 332; Ob
(56) vol. iv, p. 18; (215) vol
154.

M. pergrata.
P. A. N. S., (198) vol. xiii, 1861, p.

M. pernodosa.
T. A. P. S., (55) vol. x, 1845, p. 92
J. A. N. S., (243) vol. vi, 1866
Gen. Unio, (56) vol. iv, p. 92
(244) vol. xi, p. 102.

M. perstriata.
P. A. P. S., (94) vol. v, 1852, p. 25
(81) vol. x, 1852, p. 296, pl. x
Gen. Unio, (83) vol. v, p. 52, pl

M. picta.
P. A. P. S., (40) vol. ii, 1841, p. 8
(51) vol. ix, 1841, p. 19, 1842, p.
Unio, (56) vol. iv, pp. 19, 25.

M. pilula.
P. A. P. S., (37) vol. ii, 1841, p. 15
(43) vol. viii, 1841, p. 186, pl.
Gen. Unio, (44) vol. iii, p. 24,

M. pinguis.
T. A. P. S., (81) vol. x, 1852, p. 301,
P. A. P. S., (94) vol. v, 1852, p.
S., (214) vol. v, 1862, p. 281; Ob
(83) vol. v, p. 57, pl. xxxv, f.
ix, p. 103

Melania planensis.
P. A. N. S., (140) vol. x, 1858, p. 118; J. A. N. S., (243) vol. vi, 1866, p. 127, pl. xxii, f. 26; Obs. Gen. Unio, (244) vol. xi. p. 83, pl. xxii, f. 26.

M. plicata.
T. A. P. S., (27) vol. vi, 1835, p. 20, pl. xxiii, f. 95; (51) vol. ix, 1842, p. 24; Obs. Gen. Unio, (29) vol. ii, p. 20, pl. xxii, f. 95; (56) vol. iv, p. 24; P. A. P. S., (48) vol. ii, 1842, p. 242.

M. plicatula.
P. A. P. S., (37) vol. ii, 1841, p. 14; (48) vol. ii, 1842, p. 242; T. A. P. S., (43) vol. viii, 1841, p. 182, pl. vi, f. 41; (51) vol. ix, 1842, p. 24; Obs. Gen. Unio, (44) vol. iii, p. 20, pl. vi, f. 41; (56) vol. iv, p. 24.

M. plicifera.
T. A. P. S., (27) vol. vi, 1836, p. 93, pl. xxiii, f. 90; Obs. Gen. Unio, (29) vol. ii, p. 93, pl. xxiii, f. 90.

M. polygonata.
P. Z. S., London, (59) vol. xviii, 1850, p. 195.

M. porcata.
J. A. N. S., (243) vol. vi, 1866, p. 123; Obs. Gen. Unio, (244) vol. xi, p. 79.

M. Postellii.
P. A. N. S., (143) vol. x, 1858, p. 166.

M. Potoriensis.
P. A. P. S., (37) vol. ii, 1841, p. 14; T. A. P. S., (43) vol. viii, 1841, p. 184, pl. vi, f. 45; Obs. Gen. Unio, (44) vol. iii, p. 22, pl. vi, f. 45.

M. prærosa.
T. A. P. S., (51) vol. ix, 1841, p. 14; Obs. Gen. Unio, (56) vol. iv, p. 14.

M. praerinata.
J. A. N. S., (214) vol. v, 1862, p. 271; Obs. Gen. Unio, (215) vol. ix, p. 93.

M. producta.
P. A. P. S., (48) vol. ii, 1842, p. 243; T. A. P. S., (51) vol. ix, 1842, p. 28; Obs. Gen. Unio, (56) vol. iv, p. 28.

M. propria.
P. A. N. S., (198) vol. xiii, 1861, pp. 118, 123; J. A. N. S., (214) vol. v, 1862, pp. 228, 230; Obs. Gen. Unio, (215) vol. ix, pp. 50, 52.

M. propinqua.
P. A. N. S., (198) vol. xiii, 1861, p. 119; J. A. N. S., (214) vol. v, 1862, p. 234; Obs. Gen. Unio, (215) vol. ix, p. 56.

M. proteus.
T. A. P. S., (55) vol. x. 1845, p. 83, pl. ix, f. 28; J. A. N. S., (214) vol. v, 1862, pp. 228, 334, 336, 353; Obs. Gen. Unio, (56) vol. iv, p. 83, pl. ix, f. 28; (215) vol. ix, p. 50.

M. proxima.
J. A. N. S., (214) vol. v, 1862, pp. 334, 336, 353; Obs. Gen. Unio, (215) vol. ix, pp. 156, 158, 175.

M. pudica.
P. A. N. S., (198) vol. xiii, 1861, p. 120; J. A. N. S., (214) vol. v, 1862, p. 222; Obs. Gen. Unio, (215) vol. ix, p. 44.

M. pumila.
P. A. N. S., (198) vol. xiii, 1861, p. 119; T. A. P. S., (55) vol. x, 1845, p. 86, pl. ix, f. 36; J. A. N. S., (214) vol. v, 1862, pp. 266, 279; Obs. Gen. Unio, (56) vol. iv, p. 86, pl. ix, f. 36; (215) vol. ix, pp. 88, 101.

Melania pumicea.
J. A. N. S., (214) vol. v, 1862, p. 232, pl. xxxiv, f. 27; Obs. Gen. Unio, (215) vol. ix, p. 54, pl. xxxiv, f. 27.

M. pupæformis.
J. A. N. S., (214) vol. v, 1862, p. 232; Obs. Gen. Unio, (215) vol. ix, p. 54.

M. pupoidea.
J. A. N. S., (214) vol. v, 1862, pp. 229, 234; (243) vol. vi, 1866, p. 130; Obs. Gen. Unio, (215) vol. ix, pp. 51, 56; (244) vol. xi, p. 86.

M. purpurea.
P. A. N. S., (198) vol. xiii, 1861, p. 120; J. A. N. S., (214) vol. v, 1862, p. 225; Obs. Gen. Unio, (215) vol. ix, p. 47.

M. pyrenella.
J. A. N. S., (214) vol. v, 1862, p. 270; Obs. Gen. Unio, (215) vol. ix, p. 92.

M. quadrivittata.
P. A. N. S., (198) vol. xiii, 1861, p. 119; J. A. N. S., (214) vol. v, 1862, p. 227; Obs. Gen. Unio, (215) vol. ix, p. 49.

M. rara.
P. A. N. S., (198) vol. xiii, 1861, p. 121; J. A. N. S., (214) vol. v, 1862, p. 220; Obs. Gen. Unio, (215) vol. ix, p. 42.

M. recta.
P. Z. S., London, (59) vol. xviii, 1850, p. 185.

M. regularis.
P. A. P. S., (37) vol. ii, 1841, p. 12; T. A. P. S., (43) vol. viii, 1841, p. 170, pl. v, f. 16; (55) vol. x, 1845, p. 85; J. A. N. S., (214) vol. v, 1862, p. 272; Obs. Gen. Unio, (44) vol. iii, p. 8, pl. v, f. 16; (56) vol. iv, p. 85; (215) vol. ix, p. 94.

M. reticulata.
P. Z. S., London, (59) vol. xviii, 1850, p. 193.

M. rhombica.
J. A. N. S., (214) vol. v, 1862, p. 244; (243) vol. vi. 1866, pp. 130, 132; Obs. Gen. Unio, (215) vol. ix, p. 66; (244) vol. xi, pp. 86, 88.

M. robusta.
P. A. P. S., (40) vol. ii, 1841, p. 83; T. A. P. S., (51) vol. ix, 1841, p. 19; J. A. N. S., (214) vol. v, 1862, p. 219, 239; Obs. Gen. Unio, (56) vol. iv, p. 19; (215) vol. ix, pp. 41, 61.

M. Rogersii.
T. A. P. S., (43) vol. viii, 1841, pp. 171, 172; Obs. Gen. Unio, (44) vol. iii, pp. 9, 10.

M. rubicunda.
P. A. N. S., (198) vol. xiii, 1861, p. 118; J. A. N. S., (214) vol. v, 1862, p. 235; Obs. Gen. Unio, (215) vol. ix, p. 57.

M. rubida.
P. A. N. S., (144) vol. viii, 1856, p. 145; J. A. N. S., (243) vol. vi, 1866, p. 121, pl. xxii, f. 16; Obs. Gen. Unio, (244) vol. xi, p. 77, pl. xxii, f. 16.

M. rudis.
P. Z. S., London, (59) vol. xviii, 1850, pp. 186, 187; T. A. P. S., (81) vol. x, 1852, p. 295; Obs. Gen. Unio, (83) vol. v, p. 51.

M. rufa.
P. A. P. S., (37) vol. ii, 1841, p. 12; T. A. P. S., (43) vol. viii, 1841, p. 167, pl. v, f. 8, also Corrigenda; (51) vol. ix, 1841, p. 18; Obs. Gen. Unio, (44) vol. iii, p. 5, pl. v, f. 8, also Corrigenda; (56) vol. iv, p. 18.

Melania rufescens.
T. A. P. S.. (43) vol. viii, 1842, Corrigenda; J. A. N. S., (243) vol. vi, 1860, p. 131; Obs. Gen. Unio, (44) vol. iii, Corrigenda; (244) vol. xi, p. 87.

M. rugosa.
T. A. P. S., (43) vol. viii, 142, Corrigenda; J. A. N. S., (214) vol. v, 1862, p. 328; Obs. Gen. Unio, (44) vol. iii, Corrigenda; (215) vol. ix, p. 150.

M. Saffordii.
P. A. P. S., (94) vol. v, 1852, p. 252; T. A. P. S., (81) vol. x, 1852, p. 300, pl. xxx, f. 10; J. A. N. S., (214) vol. v, 1862, p. 330; Obs. Gen. Unio, (83) vol. v, p. 56, pl. xxx, f. 10; (215) vol. ix, p. 152.

M. salebrosa.
J. A. N. S., (214) vol. v, 1862, pp. 260, 261; Obs. Gen. Unio, (215) vol. ix, pp. 82, 83.

M. Sayi.
J. A. N. S., (214) vol. v, 1862, p. 276; Obs. Gen. Unio, (215) vol. ix, p. 98.

M. scabra.
P. Z. S. London, (59) vol. xviii, 1850, p. 194.

M. scilicula.
J. A. N. S., (243) vol. vi, 1866, p. 126; Obs. Gen. Unio, (244) vol. xi, p. 82.

M. sculptilis.
P. A. N. S., (94) vol. v, 1852, p. 252; T. A. P. S., (81) vol. x, 1852, p. 297, pl. xxx, f. 3; Obs. Gen. Unio, (83) vol. v, p. 53, pl. xxx, f. 3; (244) vol. xi, p. 104; J. A. N. S., (243) vol. vi, 1866, p. 148.

M. Sellersiana.
P. A. P. S., (94) vol. v, 1852, p. 252; T. A. P. S., (81) vol. x, 1852, p. 299, pl. xxx, f. 8; J. A. N. S., (214) vol. v, 1862, p. 328; Obs. Gen. Unio, (83) vol. v, p. 55, pl. xxx, f. 8; (215) vol. ix, p. 150.

M. semicarinata.
T. A. P. S., (55) vol. x, 1845, p. 89; J. A. N. S., (214) vol. v, 1862, p. 302; Obs. Gen. Unio, (56) vol. iv, p. 89; (215) vol. ix, p. 124.

M. semigranulata.
J. A. N. S., (214) vol. v, 1862, p. 260; Obs. Gen. Unio, (215) vol. ix, p. 82.

M. seminalis.
P. A. N. S., (109) vol. viii, 1856, p. 81; J. A. N. S., (243) vol. vi, 1866, pp. 155, 156; Obs. Gen. Unio, (244) vol. xi, pp. 111, 112.

M. semiplicata.
P. Z. S., London, (59) vol. xviii, 1850, p. 187.

M. Shastaensis.
P. A. N. S., (109) vol. viii, 1856, p. 80.

M. Shelbyensis.
P. A. N. S., (198) vol. xiii, 1861, p. 121.

M. Showalterii.
P. A. N. S., (198) vol. xiii, 1861, p. 120; J. A. N. S., (214) vol. v, 1862, p. 220; Obs. Gen. Unio, (215) vol. ix, p. 42.

M. silicula.
J. A. N. S., (214) vol. v, 1862, p. 302: Obs. Gen. Unio, (215) vol. ix, p. 124.

M. simplex.
T. A. P. S., (43) vol. viii, 1841, pp. 166, 169; P. Z. S., London, (59) xviii, 1850, p. 182; J. A. N. S., (214) vol. v, 1862, p. 278; Obs. Gen. Unio, (44) vol. iii, pp. 4, 7; (215) vol. ix, p. 100.

Melania sobria.
P. Z. S., London, (59) vol. xviii, 185

M. solida.
T. A. P. S., (55) vol. x, 1845, p. 83, pl
A. N. S., (214) vol. v, 1862, p. 26
Unio, (56) vol. iv, p. 83, pl. ix
vol. ix, p. 88.

M. solidula.
P. A. N. S., (198) vol. xiii, 1861, p. 121
(214) vol. v, 1862, p. 231, Obs.
(215) vol. ix, p. 53.

M. sordida.
P. A. P. S., (37) vol. ii, 1841, p. 12;
(43) vol. viii, 1841, p. 170, pl.
vol. x, 1852, p. 301; Obs. Ger
vol. iii, p. 8, pl. v, f. 15; (83) v

M. spinalis.
T. A. P. S., (55) vol. x, 1845, p. 89.
Obs. Gen. Unio, (56) vol. iv, p. 8

M. spinulosa.
P. Z. S., London, (59) vol. xviii, 18
A. N. S., (214) vol. v, 1862, p. 34
Unio, (215) vol. ix, p. 162.

M. spurca.
T. A. P. S., (55) vol. x, 1845, p. 85,
Obs. Gen. Unio, (56) vol. iv, p.
31.

M. straminea.
P. A. N. S., (198) vol. xiii, 1861, p. 1
S., (214) vol. v, 1862, p. 227; Ob
(215) vol. ix, p. 49.

M. striata.
P. A. P. S., (37) vol. ii, 1841, p. 15
(43) vol. viii, 1842, p. 186, pl.
Corrigenda; Obs. Gen. Unio, (
24, pl. vi, f, 49, also Corrigenda.

M. striatula.
T. A. P. S., (43) vol. viii, 1842, Corr
vol. x, 1852, p. 297; J. A. N. S.
1862, p. 268; Obs. Gen. Unio,
Corrigenda; (83) vol. v, p. 5
ix, p. 90.

M. strigosa.
P. A. P. S., (37) vol. ii, 1841, p. 13;
(43) vol. viii, 1841, p. 175, pl. v
N. S., (214) vol. v, 1862, pp. 2
298; (243) vol. vi, 1866, p. 140
Unio, (44) vol. iii, p. 13, pl. v.
vol. ix, pp. 96, 97, 116, 120; (24
96.

M. suavis.
P. A. N. S., (198) vol. xiii, 1861, p
N. S., (214) vol. v, 1862, pp. 2
Gen. Unio, (215) vol. ix, pp. 51

M. subangulata.
J. A. N. S., (214) vol. v, 1862, p. 33
Unio, (215) vol. ix, p. 152.

M. subcylindracea.
P. A. P. S., (37) vol. ii, 1841, p. 12;
(43) vol. viii, 1841, p. 169; Obs
(44) vol. iii, p. 7, pl. v, f. 14.

M. subglobosa.
T. A. P. S., (43) vol. viii, 1841, pp. 1
vol. ix, 1841, p. 14; Obs. Gen. U
iii, pp. 10, 24; (56) vol. iv, p. 1

M. subimbricata.
J. A. N. S., (243) vol. vi, 1866, p. 12
Unio, (244) vol. xi, p. 85.

Melania subcelida.

T. A. P. S., (37) vol. ii, 1841, p. 12; T. A. P. S., (43) vol. viii, 1841, p. 168, pl. v, f. 12; Obs. Gen. Unio, (44) vol. iii, p. 6, pl. v, f. 12.

M. subula.

P. Z. S., London, (59) vol. xviii, 1850, p. 181.

M. subulaeria.

T. A. P. S., (15) vol. iv, 1830, pp. 100, 121, pl. xv. f. 30; J. A. N. S., (214) vol. v, 1862, p. 276; Obs. Gen. Unio, (21) vol. i, pp. 110, 131, pl. xv, f. 30; (215) vol. ix, p. 98.

M. sulcosa.

P. A. P. S., (37) vol. ii, 1841, p. 14; T. A. P. S., (43) vol. viii, 1841, p. 185, pl. vi, f. 48. Obs. Gen. Unio, (44) vol. iii, p. 23, pl. vi, f. 48.

M. Taitiana.

P. A. P. S., (37) vol. ii, 1841, p. 11; T. A. P. S., (43) vol. viii, 1841, p. 165, pl. v, f. 5; J. A. N. S., (214) vol. v, 1862, p. 301; Obs. Gen. Unio, (44) vol. iii, p. 3, pl. v, f. 5; (215) vol. ix, p. 123.

M. Tamaii.

J. A. N. S., (243) vol. vi, 1866, p. 125; Obs. Gen. Unio, (244) vol. xi, p. 81.

M. tenebrosa.

P. A. P. S., (37) vol. ii, 1841, p. 13; T. A. P. S., (43) vol. viii, 1841, pp. 167, 176; J. A. N. S., (214) vol. v, 1862, p. 335; (243) vol. vi, 1866, p. 122; Obs. Gen. Unio, (44) vol. iii, pp. 5, 14, pl. v, f. 26; (215) vol. ix, p. 157; (244) vol. xi, p. 89.

M. terebralis.

P. A. P. S., (37) vol. ii, 1841, p. 13; T. A. P. S., (43) vol. viii, 1841, p. 178, pl. vi, f. 32; J. A. N. S., (214) vol. v, 1862, p. 298; Obs. Gen. Unio, (44) vol. iii, p. 16, pl. vi, f. 32; (215) vol. ix, p. 120.

M. tera.

P. A. P. S., (37) vol. ii, 1841, p. 13; T. A. P. S., (43) vol. viii, 1841, pp. 167, 175, 176, pl. v, f. 27; J. A. N. S., (214) vol. v, 1862, p. 332; Obs. Gen. Unio, (44) vol. iii, pp. 5, 13, 14, pl. v, f. 27; (215) vol. ix, f. 154.

M. tessellata.

P. Z. S., London, (59) vol. xviii, 1850, p. 192.

M. tornatella.

P. Z. S., London, (59) vol. xviii, 1850, pp. 185, 186, 187; T. A. P. S., (81) vol. x, 1852, p. 295; Obs. Gen. Unio, (83) vol. v, p. 51.

M. torquata.

P. A. P. S., (48) vol. ii, 1842, p. 242; T. A. P. S., (51) vol. ix, 1842, p. 27; J. A. N. S., (243) vol. vi, 1866, p. 126; Obs. Gen. Unio, (56) vol. iv, p. 27; (244) vol. xi, p. 82.

M. torta.

T. A. P. S., (55) vol. x, 1845, p. 84, pl. ix, f. 30; Obs. Gen. Unio, (56) vol. iv, p. 84, pl. ix, f. 30.

M. transversa.

P. Z. S., London, (59) vol. xviii, 1850, p. 187; T. A. P. S., (81) vol. x, 1852, pp. 295, 296; P. Z. S., London, (59) vol. xviii, 1850, p. 186; J. A. N. S., (243) vol. vi, 1866, pp. 128, 129; Obs. Gen. Unio, (83) vol. v, pp. 51, 52; (244) vol. xi, pp. 84, 85.

M. Trosctiana.

T. A. P. S., (27) vol. vi, 1836, p. 92, pl. xxiii, f. 86; Obs. Gen. Unio, (29) vol. ii, p. 92, pl. xxiii, f. 86.

Melania truncata.

P. Z. S., London, (59) vol. xviii, 1850, p. 187.

M. tuberculata.

T. A. P. S., (15) vol. iv, 1830, p. 101, pl. xv, f. 31, a, b; (27) vol. vi, 1838; Obs. Gen. Unio, (21) vol. i, p. 111, pl. xv, f. 31, a, b; (29) vol. ii, p. 18.

M. turgida.

P. A. P. S., (40) vol. ii, 1841, p. 82; T. A. P. S., (51) vol. ix, 1841, p. 18; J. A. N. S., (214) vol. v, 1862, p. 282; Obs. Gen. Unio, (56) vol. iv, p. 18; (215) vol. ix, p. 104.

M. turriculus.

P. Z. S., London, (59) vol. xviii, 1850, p. 190; J. A. N. S., (243) vol. vi, 1866, p. 122; Obs. Gen. Unio, (244) vol. xi, p. 78.

M. uncialis.

J. A. N. S., (214) vol. v, 1862, p. 352; Obs. Gen. Unio, (215) vol. ix, p. 174.

M. undosa.

J. A. N. S., (214) vol. v, 1862, p. 263; Obs. Gen. Unio, (215) vol. ix, p. 85.

M. undulata.

J. A. N. S., (214) vol. v, 1862, pp. 284, 295; (243) vol. vi, 1866, p. 146; Obs. Gen. Unio, (215) vol. ix, pp. 106, 117; (244) vol. xi, p. 102.

M. Vanuxemiana.

P. A. P. S., (48) vol. ii, 1842, p. 242; T. A. P. S., (51) vol. ix, 1842, pp. 25, 26; J. A. N. S., (214) vol. v, 1862, pp. 234, 338, 350; Obs. Gen. Unio, (56) vol. iv, pp. 25, 26; (215) vol. ix, pp. 56, 160, 172.

M. Vanuxemii.

J. A. N. S., (243) vol. vi, 1866, p. 137; Obs. Gen. Unio, (244) vol. xi, p. 93.

M. variabilis.

T. A. P. S., (51) vol. ix, 1842, p. 28; Obs. Gen. Unio, (56) vol. iv, p. 28.

M. varians.

P. A. N. S., (198) vol. xiii, 1861, p. 120; J. A. N. S., (215) vol. ix, p. 41.

M. variata.

P. A. N. S., (198) vol. xiii, 1861, p. 119; J. A. N. S., (214) vol. v, 1862, p. 224; Obs. Gen. Unio, (215) vol. ix, p. 46.

M. varicosa.

J. A. N. S., (214) vol. v, 1862, pp. 297, 306; Obs. Gen. Unio, (215) vol. ix, pp. 119, 128.

M. venusta.

P. A. P. S., (37) vol. ii, 1841, p. 15; T. A. P. S., (43) vol. viii, 1841, p. 187, pl. vi, f. 52; J. A. N. S., (214) vol. v, 1862, p. 260; Obs. Gen. Unio, (44) vol. iii, p. 25, pl. vi, f. 52; (215) vol. ix, p. 82.

M. Verreauxiana.

P. A. N. S., (114) vol. viii, 1856, p. 144; J. A. N. S., (243) vol. vi, 1866, p. 127, pl. xxii, f. 27; Obs. Gen. Unio, (244) vol. xi, p. 83, pl. xxii, f. 27.

M. vesicula.

P. A. N. S., (198) vol. xiii, 1861, p. 118; J. A. N. S., (214) vol. v, 1862, p. 242; Obs. Gen. Unio, (215) vol. ix, p. 64.

M. virgata.

P. A. N. S., (37) vol. ii, 1841, p. 13; T. A. P. S., (43) vol. viii, 1841, p. 175, pl. v, f. 25; Obs. Gen. Unio, (44) vol. iii, p. 13, pl. v, f. 25.

Melania Virginica.
T. A. P. S., (15) vol. iv, 1830, p. 101; (27) vol. vi, 1836, p. 93; (43) vol. viii, 1840, pp. 176, 228; (55) vol. x, 1845, pp. 86, 90; P. Z. S., London, (59) vol. xviii, 1850, pp. 188, 190; Obs. Gen. Unio, (21) vol. i, p. 111; (29) vol. ii, p. 93; (44) vol. iii, pp. 14, 66; (56) vol. iv, pp. 86, 90; (215) vol. ix, p. 40, 159; J. A. N. S., (214) vol. ix, 1862, pp. 218, 337.

M. virgulata.
P. A. N. S., (198) vol. xiii, 1861, p. 119; J. A. N. S., (214) vol. v, 1862, p. 223; Obs. Gen. Unio, (215) vol. ix, p. 45.

M. viridis.
P. A. P. S., (37) vol. ii, p. 12; T. A. P. S., (43) vol. viii, 1841, p. 172, pl. v, f. 19; Obs. Gen. Unio, (44) vol. iii, p. 10, pl. v, f. 19.

M. Warderiana.
T. A. P. S., (43) vol. viii, 1841, p. 185, pl. vi, f. 47; (55) vol. x, 1845, p. 84; J. A. N. S., (243) vol. vi, 1866, p. 138; Obs. Gen. Unio, (44) vol. iii, p. 23, pl. vi, f. 47; (56) vol. iv, p. 84; (244) vol. xi, p. 94.

M. zeylanica.
P. Z. S., London, (59) vol. xviii, 1850, pp. 194, 196; J. A. N. S., (243) vol. vi, 1866, p. 118; Obs. Gen. Unio, (244) vol. xi, p. 75.

MELANOPSIS.
T. A. P. S., (20) vol. v, 1833, pp. 83; (51) vol. ix, 1842, p. 24; (81) vol. x, 1852, p. 295; Obs. Gen. Unio, (21) vol. i, p. 195; (56) vol. iv, p. 24; (83) vol. v, p. 51; P. Z. S., London, (59) vol. xviii, 1850, p. 179.

M. Braziliensis.
T. A. P. S., (51) vol. ix, 1842, p. 24; Obs. Gen. Unio, (56) vol. iv, p. 24.

M. crenocarina.
T. A. P. S., (51) vol. ix, 1842, p. 24; Obs. Gen. Unio, (56) vol. iv, p. 24.

M. maculata.
T. A. P. S., (20) vol. v, 1833, p. 82, pl. xix, f. 75; (51) vol. ix, 1842, p. 24; Obs. Gen. Unio, (21) vol. i, p. 194, pl. xix, f. 75; (56) vol. iv, p. 24.

M. princeps.
T. A. P. S., (20) vol. v, 1833, pp. 82, 83, pl. xix, f. 74; Obs. Gen. Unio, (21) vol. i, pp. 194, 195.

MELATOMA.
T. A. P. S., (81) vol. x, 1852, p. 295; J. A. N. S., (214) vol. v, 1862, p. 245; Obs. Gen. Unio, (83) vol. v, p. 51; (215) vol. ix, p. 67; P. A. N. S., (182) vol. xii, 1860, p. 186.

M. costata.
J. A. N. S., (214) vol. v, 1862, p. 245; Obs. Gen. Unio, (215) vol. ix, p. 67.

MESESCHIZA.
J. A. N. S., (243) vol. vi, 1866, p. 152; Obs. Gen. Unio, (244) vol. xi, p. 108.

M. Grosvenorii.
J. A. N. S., (243) vol. vi, 1866, p. 152, pl. xxiii, f. 67; Obs. Gen. Unio, (244) vol. xi, p. 108, pl. xxiii, f. 67.

MILIOLA.
(18) Con. Geol., 1833, p. 216.

M. Marylandica.
(18) Con. Geol., 1833, p. 215, pl. vi, f. 227.

M. planulata.
(18) Con. Geol., 1833, p. 216.

MITRA.
(18) Con. Geol., 1833, p. 171.

M. cancellata.
(18) Con. Geol., 1833, p. 168.

M. Defrancii.
(18) Con. Geol., 1833, p. 169.

M. Flemingii.
(18) Con. Geol., 1833, p. 170, pl. vi, f. 177.

M. fusoides.
(18) Con. Geol., 1833, pp. 169, 170, pl. vi, f. 17

M. Humboldtii.
(18) Con. Geol., 1833, p. 170, pl. vi, f. 178.

M. lineata.
(18) Con. Geol., 1833, p. 168, pl. v, f. 174.

M. minima.
(18) Con. Geol., 1833, p. 168, pl. vi, f. 175.

M. pumila.
(18) Con. Geol., 1833, p. 170.

M. Savignyi.
(18) Con. Geol., 1833, p. 169.

MONOCEROS.
(18) Con. Geol., 1833, p. 163.

M. fusiformis.
(18) Con. Geol., 1833, p. 162, pl. v, f. 167.

M. pyruloides.
(18) Con. Geol., 1833, p. 161, pl. v, f. 166.

M. sulcatum.
(18) Con. Geol., 1833, p. 163, pl. v, f. 168.

MONOCONDYLŒA.
T. A. P. S., (27) vol. vi, 1838, p. 135; (79) x, 1852, p. 293; P. Z. S., London, (60) xviii, 1850, p. 199; J. A. N. S., (133) vo 1857, pp. 317, 318; Obs. Gen. Unio, (29) ii, p. 135; (83) vol. v, p. 49; (150) vol pp. 37, 38.

M. Bonellii.
J. A. N. S., (242) vol. vi, 1866, p. 65; Obs. Unio, (244) vol. xi, p. 69.

M. compressa.
J. A. N. S., (242) vol. vi, 1866, p. 30, pl. xi, f Obs. Gen. Unio, (244) vol. xi, p. 34, pl. xi,

M. Corrientesensis.
T. A. P. S., (27) vol. vi, 1838, p. 136; Obs. Unio, (29) vol. ii, p. 136.

M. Cumingii.
J. A. N. S., (168) vol. iv, 1859, pp. 235, 26 xxx, f. 114; Obs. Gen. Unio, (170) vol pp. 53, 80, pl. xxxiii, f. 114.

M. fossiculifera.
T. A. P. S., (27) vol. vi, 1838, p. 136; (43) viii, 1840, p. 222; Obs. Gen. Unio, (29) ii, p. 136; (44) vol. iii, p. 60.

M. Franciscana.
T. A. P. S., (27) vol. vi, 1838, p. 143; Obs. Unio, (29) vol. ii, p. 143.

M. Guarayana.
T. A. P. S., (27) vol. vi, 1838, p. 136; Obs. Unio, (29) vol. ii, p. 136; (150) vol. vi, J. A. N. S., (133) vol. iii, 1857, p. 318.

M. lentiformis.
J. A. N. S., (257) vol. vi, 1868, p. 272, pl. x f. 86; Obs. Gen. Unio, (259) vol. xii, pl. xxxvi, f. 86.

M. Mardinensis.
J. A. N. S., (257) vol. vi, 1868, p. 232, pl. x 67; Obs. Gen. Unio, (259) vol. xii, p. xxx, f. 67.

inuana.
27) vol. vi, 1838, p. 136; Obs. Gen.
) vol. ii, p. 136.

42) vol. vi, 1866, p. 65, pl. 21, f. 62;
. Unio, (244) vol. xi, p. 69, pl. xxi,

27) vol. vi, 1838, p. 135; Obs. Gen.
) vol. ii, p. 135; (150) vol. vi, p. 39;
., (133) vol. iii, 1857, p. 319.

7) vol. vi, 1838, p. 136; Obs. Gen.
) vol. ii, p. 136.

257) vol. vi, 1868, p. 273, pl. xxxvi,
s. Gen. Unio, (259) vol. xii, p. 33,
, f. 88.

158) vol. xi, 1859, p. 187; J. A. N.
vol. iv, 1859, p. 262, pl. xlii, f. 142;
. v, 1863, p. 399; Obs. Gen. Unio,
vii, p. 80, pl. xlii, f. 42; (222) vol. x,

(158) vol. xi p. 187; J. A. N. S.,
. iv, 1859, p. 263, pl. xlii, f. 143;
. Unio, (170) vol. vii, p. 81, pl.
.

242) vol. vi, 1866, p. 65; Obs. Gen.
) vol. xi, p. 69.

sna.
68) vol. iv, 1859, p. 236; Obs. Gen.
) vol. vii, p. 54.

20) vol. v, 1862, p. 390, pl. l, f. 307;
. Unio, (222) vol. x, p. 35, pl. l, f.

L., 1833, p. 185.

L., 1833, pp. 186, 203, pl. vi, f. 201.

L., 1833, p. 203, pl. vi, f. 217.

L., 1833, p. 185.

47) vol. iv, 1858, p. 45; Obs. Gen.
) vol. vi, p. 45.

L., 1833, p. 157.

L., 1833, p. 157, pl. v, f. 163.

L., 1833, p. 157.

L., 1833, p. 153.

L., 1833, p. 154.

L., 1833, p. 157.

ol., 1833, p. 157.

ol., 1833, p. 151.

MYA.
T. A. P. S., (20) vol. v, p. 24.

M. alata.
T. A. P. S., (27) vol. vi, 1838, p. 121; Obs. Gen. Unio, (29) vol. ii, p. 121.

M. ambigua.
T. A. P. S., (27) vol. vi, 1838, p. 122; Obs. Gen. Unio, (29) vol. ii, p. 122.

M. angulata.
T. A. P. S., (27) vol. vi, 1838, p. 121; Obs. Gen. Unio, (29) vol. ii, p. 121.

M. angustata.
T. A. P. S., (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (29) vol. ii, p. 132.

M. Batava.
T. A. P. S., (27) vol. vi, 1838, p. 128; Obs. Gen. Unio, (29) vol. ii, p. 128.

M. complanata.
T. A. P. S., (12) vol. iii, 1829, p. 416; (15) vol. iv, 1830, p. 77; (27) vol. vi, 1838, p. 130; J. A. N. S., (221) vol. v, 1863, p. 412; Obs. Gen. Unio, (21) vol. i, pp. 30, 87; (29) vol. ii, p. 130; (222) vol. x, p. 48.

M. corrugata.
T. A. P. S., (27) vol. vi, 1838, p. 129; Obs. Gen. Unio, (29) vol. ii, p. 129.

M. corrugata Maroccana.
T. A. P. S., (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (29) vol. ii, p. 132.

M. crassa.
T. A. P. S., (27) vol. vi, 1838, p. 122; Obs. Gen. Unio, (29) vol. ii, p. 122.

M. crassissima.
T. A. P. S., (27) vol. vi, 1838, p. 139; Obs. Gen. Unio, (29) vol. ii, p. 134.

M. depressa.
T. A. P. S., (27) vol. vi, 1838, pp. 130, 132; Obs. Gen. Unio, (29) vol. ii, pp. 130, 132.

M. gravis.
T. A. P. S., (27) vol. vi, 1838, p. 127; Obs. Gen. Unio, (29) vol. ii, p. 127.

M. margaritifera.
T. A. P. S., (12) vol. iii, 1829, p. 421; (20) vol. v, 1833, pp. 63, 87, 88; (27) vol. vi, 1838, pp. 134, 136; J. A. N. S., (159) vol. iv, 1859, p. 224; Obs. Gen. Unio, (21) vol. i, pp. 35, 175, 199, 200; (29) vol. ii, pp. 134, 136; (170) vol. vii, p. 42.

M. nasuta.
T. A. P. S., (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (29) vol. ii, p. 132.

M. nodosa.
T. A. P. S., (27) vol. vi, 1838, p. 129; Obs. Gen. Unio, (29) vol. ii, p. 129.

M. nodulosa.
T. A. P. S., (27) vol. vi, 1838, p. 123; Obs. Gen. Unio, (29) vol. ii, p. 23; (215) vol. ix, p. 28; J. A. N. S., (213) vol. v, 1862, p. 206.

M. obliqua.
T. A. P. S., (27) vol. vi, 1838, p. 125; Obs. Gen. Unio, (29) vol. i p. 125.

M. oblongata.
T. A. P. S., (27) vol. vi, 1838, p. 127; Obs. Gen. Unio, (29) vol. ii, p. 127.

M. ovalis.
T. A. P. S., (27) vol. vi, 1838, pp. 128, 132; Obs. Gen. Unio, (29) vol. ii, pp. 128, 132.

Mya ovata.
T. A. P. S., (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (29) vol. ii, p. 132.

M. pictorum.
T. A. P. S., (15) vol. iv, 1830, p. 67; (27) vol. vi, 1838, pp. 128, 129, 132; Obs. Gen. Unio, (21) vol. i, p. 77; (29) vol. ii, pp. 128, 129, 132.

M. pictorum tenuis.
T. A. P. S., (27) vol. vi, 1838, p. 127; Obs. Gen. Unio, (29) vol. ii, p. 127.

M. ponderosa.
T. A. P. S., (27) vol. vi, 1838, p. 122; Obs. Gen. Unio, (29) vol. ii, p. 122.

M. prælonga.
T. A. P. S., vol. vi, 1838, p. 131; Obs. Gen. Unio, (29) vol. ii, p. 131.

M. radiata.
T. A. P. S., (12) vol. iii, 1829, pp. 415, 422; (27) vol. vi, 1838, p. 127; Obs. Gen. Unio, (21) vol. i, pp. 29, 36; (29) vol. ii, p. 127.

M. regulosa.
T. A. P. S., (27) vol. vi, 1838, p. 135; Obs. Gen. Unio, (29) vol. ii, p. 135.

M. rigida.
T. A. P. S., (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (29) vol. ii, p. 130.

M. rotunda.
T. A P. S., (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (29) vol. ii, p. 130.

M. rugosa.
T. A. P. S., (27) vol. vi, 1838, p. 129; Obs. Gen. Unio, (29) vol. ii, p. 129.

M. spuria.
T. A. P. S., (27) vol. vi, 1838, p. 129; Obs. Gen. Unio, (29) vol. ii, p. 129.

M. syrmatophora.
T. A. P. S., (20) vol. v, 1833, p. 92; (27) vol. vi, 1838, p. 121: Obs. Gen. Unio, (21) vol. i, p. 204; (29) vol. ii, p. 121.

M. undulata.
T. A. P. S., (27) vol vi, 1838, p. 135: Obs. Gen. Unio, (29) vol. ii, p. 135.

M. variabilis.
T. A. P. S., (27) vol. vi, 1838, p. 131; Obs. Gen. Unio, (29) vol. ii, p. 131.

M. ventricosa.
T. A. P. S., (27) vol vi, 1838, p. 133; Obs. Gen. Unio, (29) vol. ii, p. 133.

MYCETOPODA
T. A. P. S., (27) vol. vi, 1838, p. 142; Obs. Gen. Unio, (29) vol. ii, p. 142.

M. soleniformis.
T. A. P. S., (27) vol. vi, 1838, p. 142; Obs. Gen. Unio, (29) vol. ii, p. 142.

M. siliquosus.
T. A P. S., (27) vol. vi, 1838, p. 142; Obs. Gen. Unio, (29) vol. ii, p. 142.

M. emarginatus.
P. A. N. S., (187) vol. xii, 1860, p. 308; J. A. N. S., (220) vol. v, 1863, p. 398, pl. l, f 305; Obs. Gen. Unio, (222) vol. x, p. 34, pl. l, f. 305.

M. pygmæus.
J. A. N. S., (257) vol. vi, 1868, p. 275; Obs. Gen. Unio, (259) vol. xii, p. 35.

M. siliquosus.
J. A. N. S., (220) vol. v, 1863, p. 399; Obs. Gen. Unio, (222) vol. x, p. 35.

MYOPARO.
(18) Con. Geol., 1833, p. 73.

M. costatus.
(18) Con. Geol., 1833, p. 74.

Mysca Batava.
T. A. P. S., (27) vol. vi, 1838, p. 128; Unio, (29) vol. ii, p. 128.

M. ovata.
T. A. P. S., (27) vol. vi, 1838, p. 130; Unio, (29) vol. ii, p. 130.

M. pictorum.
T. A. P. S., (27) vol. vi, 1838, p. 132; Unio, (29) vol. ii, p. 132.

M. solida.
T. A. P. S., (27) vol. vi, 1838, p. 132; Unio, (29) vol. ii, p. 132.

MYTILUS.
T. A. P. S., (20) vol. v, p. 24.

M. anatinus.
T. A. P. S., (27) vol. vi, 1838, p. 137; Unio, (29) vol. ii. p. 137.

M. angustior.
T. A. P. S., (27) vol. vi, 1838, p. 132; Unio, (29) vol. ii, p. 132.

M. Avonensis.
T. A. P. S., (27) vol. vi, 1838, p. 137; Unio, (29) vol. ii, p. 137.

M. cygneus.
T. A. P. S., (20) vol. v, 1833, p. 92; (1838, p. 137; Obs. Gen. Unio, (2 204; (29) vol. ii, p. 137.

M. dubius.
T. A. P. S., (27) vol. vi, 1838, p. 136; Unio, (29) vol. ii, p. 136.

M. edulis.
P. A. N. S., (118) vol. ix, 1857, p. 17.

M. fluviatilis.
T. A. P. S., (12) vol. iii, 1829, p. 416; (1836, p. 51; 1838, pp. 137, 138; Unio, (21) vol. i, p. 30; (29) vol. 137, 138.

M. fucatus.
T. A. P. S., (27) vol vi, 1838, p. 137; Unio, (29) vol. ii, p. 137.

M. illitus.
T. A. P. S., (27) vol. vi, 1838, p. 138; Unio, (29) vol. ii, p. 138.

M. incrassatus.
T. A. P. S., (27) vol. vi, 1838, p. 137; Unio, (29) vol. ii, p. 137.

M. macula.
T. A. P. S., (27) vol. vi, 1838, p. 137; Unio, (29) vol. ii, p 137.

M. Matoniana.
T. A P. S., (27) vol. vi, 1838, p. 131; Unio, (29) vol. ii, p. 131.

M. membranacea.
T. A. P. S, (27) vol. vi, 1838, p. 131; Unio, (29) vol. ii, p. 131.

M. modiolus.
T. A. P. S., (12) vol. iii, 1829, p. 416; Unio, (21) vol. i, p. 30.

M. Niloticus.
T. A. P. S., (27) vol. vi, 1838, p. 142; Unio, (29) vol. ii, p. 142.

M. plicatus.
T. A. P. S., (27) vol. vi, 1838, p. 136; Unio, (29) vol. ii, p. 136.

Mytilus radiatus.
T. A. P. S., (27) vol. vi, 1838, p. 137; Obs. Gen. Gen. Unio, (29) vol. ii, p. 137.
M. stagnalis.
T. A. P. S., (27) vol. vi, 1838, p. 137; Obs. Gen. Unio, (29) vol. ii, p. 137.
[illegible] Zellensis.
T. A. P. S., (27) vol. vi, 1838, p. 137; Obs. Gen. Unio, (29) vol. ii, p. 137.
[illegible]TICA.
(18) Con. Geol., 1833, p. 110.
[illegible]yula.
T. A. P. S., (36) vol. vii, 1840, p. 257.
[illegible]bboniana.
[illegible] A. P. S., (33) vol. i, 1840, p. 226; T. A. P. S., (36) vol. vii, 1840, p. 256, pl. ix, f. 10.
[illegible]bosa.
[illegible]8) Con. Geol., 1833, pp. 107, 108, 110, pl. iv, f. 92.
[illegible]mo-umbilicata.
[illegible]8) Con. Geol., 1833, p. 109, pl. iv, f. 94.
[illegible]mma.
[illegible]8) Con. Geol., 1833, p. 109, pl. iv, f. 95.
[illegible]ima.
[illegible]8) Con. Geol., 1833, pp. 107, 109, pl. iv, f. 91.
[illegible]or.
[illegible]8) Con. Geol., 1833, pp. 107, 108, 109, pl. iv, f. 90.
[illegible]va.
[illegible]8) Con. Geol., 1833, p. 106, pl. iv, f. 89.
[illegible]ibunata.
[illegible]8) Con. Geol., 1833, p. 108, pl. iv, f. 93.
[illegible]retina.
[illegible]8) Con. Geol., 1833, p. 106.
[illegible]ata.
[illegible]8) Con. Geol., 1833, pp. 105, 106, pl. iv, f. 88.
[illegible]A.
(18) Con. Geol., 1833, pp. 164, 165.
[illegible]ncellata.
(18) Con. Geol., 1833, p. 165, pl. v, f. 170.
[illegible]tilus Cubaensis.
T. A. P. S., (36) vol. vii, 1840, p. 259, pl. x, f. 15.
[illegible]ITINA.
P. A. N. S., (194) vol. iii, 1861, p. 55.
[illegible]horwalterii.
P. A. N. S., (194) vol. xiii, 1861, p. 55; J. A. N. S., (214) vol. v, 1862, p. 267, pl. xxxv, ff. 78, 78a; Obs. Gen. Unio, (215) vol. ix, p. 89, pl. xxxv, f. 78, 78a.
[illegible]da atrata.
T. A. P. S., (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (29) vol. ii, p. 130.
[illegible]urata.
T. A. P. S., (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (29) vol. ii, p. 130.
[illegible]vagilis.
T. A. P. S., (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (29) vol. ii, p. 130.
[illegible]CULA.
(18) Con. Geol., 1833, p. 85; P. A. N. S., (145) vol. x, 1858, p. 221.
[illegible]rogmarti.
(18) Con. Geol., 1833, pp. 82, 85, pl. iii, f. 61.
[illegible]avinifera.
(18) Con. Geol., 1833, p. 198, pl. vi, f. 212.
[illegible]ltoidea.
(18) Con. Geol., 1833, p. 199.
[illegible]obboldia.
(18) Con. Geol., 1833, p. 80.

Nucula lævigata.
(18) Con. Geol., 1833, p. 80.
N. magna.
(18) Con. Geol., 1833, p. 197, pl. vi, f. 211.
N. margaritacea.
(18) Con. Geol., 1833, p. 80.
N. media.
(18) Con. Geol., 1833, pp. 83, 85, pl. iii, f. 62.
N. mucronata.
(18) Con. Geol., 1833, p. 200.
N. ovula.
(18) Con. Geol., 1833, p. 80, pl. iii, f. 59.
N. pectuncularis.
(18) Con. Geol., 1833, p. 81, pl. iii, f. 60.
N. plana.
(18) Con. Geol., 1833, p. 199, pl. vi, f. 213.
N. plicata.
(18) Con. Geol., 1833, p. 85, pl. iii, f. 64.
N. pulcherrima.
(18) Con. Geol., 1833, pp. 84, 199, pl. iii, f. 63.
N. Sedgewickii.
(18) Con. Geol., 1833, pp. 79, 81, pl. iii, f. 58.
N. semen.
(18) Con. Geol., 1833, p. 200, pl. vi, f. 214.
N. variabilis.
(18) Con. Geol., 1833, p. 81.
OLIVA.
(18) Con. Geol., 1833, p. 185.
O. clavula.
(18) Con. Geol., 1833, p. 183.
O. constricta.
(18) Con. Geol., 1833, p. 182, pl. vi, f. 195.
O. dubia.
(18) Con. Geol., 1833, p. 183, pl. vi, f. 198.
O. gracilis.
(18) Con. Geol., 1833, p. 182, pl. vi, f. 196.
O. Greenoughi.
(18) Con. Geol., 1833, p. 183, pl. vi, f. 197.
O. minima.
(18) Con. Geol., 1833, p. 184, pl. vi, f. 200.
O. Phillipsii.
(18) Con. Geol., 1833, p. 184, pl. vi, f. 199.
O. plicaria.
(18) Con. Geol., 1833, p. 183.
O. subulata.
(18) Con. Geol., 1833, p. 183.
ORBIS.
(18) Con. Geol., 1833, p. 123.
O. rotella.
(18) Con. Geol., 1833, p. 123, pl. iv, f. 112.
ORBITOLITES.
(18) Con. Geol., 1833, p. 192.
O. discoidea.
(18) Con. Geol., 1833, p. 192, pl. vi, f. 205.
O. interstitia.
(18) Con. Geol., 1833, p. 191, pl. vi, f. 204.
Orthocera Humboldtiana.
P. A. P. S., (33) vol. i, 1840, p. 226; T. A. P. S., (36) vol. vii, 1840, p. 253, pl. viii, f. 1.
OSTREA.
(18) Con. Geol., 1833, p. 93; P. A. N. S., (145) vol. x, 1858, p. 221.
O. Alabamiensis.
(18) Con. Geol., 1833, p. 91, pl. iii, f. 71.
O. congesta.
P. A. N. S., (145) vol. x, 1858, p. 219, 220.

Ostrea costata.
(18) Con. Geol., 1833, p. 91.

O. divaricata.
(18) Con. Geol., 1833, p. 91, 208, pl. iii, f. 70.

O. flabellula.
(18) Con. Geol., 1833, p. 208.

O lingua-canis.
(18) Con. Geol., 1833, p. 92, pl. iii, f. 72.

O. pincerna.
(18) Con. Geol., 1833, p. 92, pl. iii, f. 73.

O. semilunata.
(18) Con. Geol., 1833, p. 90, pl. iii, f. 69.

PACHYCHILUS.
J. A. N S., (243) vol. vi, 1866, p. 120; Obs. Gen. Unio, (244) vol. xi, p. 77; P. Z. S., London, (59) vol. xviii, 1850, p. 179.

P. Cumingii.
P. Z. S, London, (59) vol. xviii, 1850, p. 179.

P parvum.
P. A. N. S., (144) vol. viii, 1856, p. 145; J. A. N. S, (243) vol. vi, 1866, p. 120, pl. xxii, f. 14; Obs. Gen. Unio, (244) vol. xi, p. 76, pl. xxii, f. 14.

PALMULA.
(18) Con. Geol., 1833, p. 219.

P. sagittaria.
(18) Con. Geol., 1833, p. 219, pl. vi, f. 228.

PALUDINA.
P. A. P. S., (48) vol. ii, 1842, p. 241; T. A. P. S., (51) vol. ix, 1842, pp. 13, 14, 16, 24; J. A. N. S., (214) vol. v, 1862, pp. 218, 258; (243) vol. vi, 1866, p. 119; Obs. Gen. Unio, (56) vol. iv, pp. 13, 14, 16, 24; (215) vol. ix, pp. 40, 80; (244) vol. xi, p. 75.

P. Alleghaniensis.
T. A. P. S., (51) vol. ix, 1841, p. 13; Obs. Gen. Unio, (56) vol. iv, p. 13.

P. altilis.
T. A. P. S., (43) vol. viii, 1841, p. 174; Obs. Gen. Unio, (44) vol. iii, p. 12.

P. angulata.
P. A. P. S., (40) vol. ii, 1841, p. 83; T. A. P. S., (51) vol. ix, 1841, p. 22; Obs. Gen. Unio, (56) vol. iv, p. 22.

P. bimonilifera.
T. A. P. S., (20) vol. v, 1832, p. 58, pl. xix, f. 71; Obs. Gen. Unio, (21) vol. i, p. 170, pl. xix, f. 71.

P. Burroughiana.
T. A. P. S., (20) vol. v, 1834, p. 113, pl. xix, f. 80; Obs. Gen. Unio, (21) vol. i, p. 225, pl. xix, f. 80.

P. Chinensis.
P. A. N. S., (113) vol. viii, 1856, p. 110; J. A. N. S., (243) vol. vi, 1866, p. 115; Obs. Gen. Unio, (244) vol. xi, p. 72.

P. Cincinnatiensis.
T. A. P. S., (51) vol. ix, 1841, p. 16; Obs. Gen. Unio, (56) vol. iv, p. 16.

P. coarctata.
P. A. P. S., (48) vol. ii, 1842, p. 243; T. A. P. S., (51) vol. ix, 1842, p. 30; J. A. N. S., (243) vol. vi, 1866, p. 184; Obs. Gen. Unio, (56) vol. iv, p. 30; (244) vol. xi, p. 140,

Paludina Coosaensis.
P. A. P. S., (40) vol. ii, 1841, p. 83; (51) vol. ix, 1841, p. 23; Obs. Gen. vol. iv, p. 23.

P. crassa.
J. A. N. S., (243) vol. vi, 1866, p. 116; Unio, (244) vol. xi, p. 72.

P. cyclostomaformis.
P. A. P. S., (40) vol. ii, 1841, p. 83.

P. cyclostomatiformis.
T. A. P. S., (51) vol. ix. 1841, p. 23; Unio, (56) vol. iv, p. 23.

P. decisa.
T. A. P. S., (20) vol. v, 1834, p. 116; (1836, p. 91; Obs. Gen. Unio, (2 228; (29) vol. ii, p. 91.

P. dissimilis.
T. A. P. S., (51) vol. ix, 1841, p. 13; Unio, (56) vol. iv, p. 13.

P. Elliottii.
P. A. N. S., (143) vol. x, 1858, p. 166; (243) vol. vi, 1866, p. 184, pl. x Obs. Gen. Unio, (244) vol. xi, p. 14 f. 115.

P. Georgiana.
T. A. P. S., (20) vol. v, 1834, p. 116, pl. Obs. Gen. Unio, (21) vol. i, p. 228, 85.

P. granosa.
T. A. P. S., (27) vol. vi, 1836, p. 92; Unio, (29) vol. ii, p. 92.

P. Hainesiana.
P. A. N. S., (113) vol. viii, 1856, p. 10 S., (243) vol. vi, 1866, pp. 115, 116 6; Obs. Gen. Unio, (244) vol. xi, pl. xxii, f. 6.

P. Haleiana.
T. A. P. S., (55) vol. x, 1845, p. 96; Obs. ((56) vol. iv, p. 96, pl. ix, f. 58.

P. hyalina.
T. A. P. S., (27) vol. vi, 1834, p. 17, pl. Obs. Gen. Unio, (29) vol. ii, p. 1 f. 81.

P. incrassata.
P. A. P. S., (48) vol. ii, 1842, p. 243; (51) vol. ix, 1842, p. 30; Obs. Gen. vol. iv, p. 30.

P. Ingalliana.
P. A. N. S., (113) vol. viii, 1856, p. 11 S., (243) vol. vi, 1866, p. 117, pl. Obs. Gen. Unio, (244) vol. xi, p. f. 9.

P. integra.
J. A. N. S., (243) vol. vi, 1866, p. 184; Unio, (244) vol. xi, p. 140.

P. limosa.
T. A. P. S., (43) vol. viii, 1840, p. 229; 1841, pp. 13, 16; Obs. Gen. Unio, (p. 67; (56) vol. iv, pp. 13, 16.

P. lustrica.
T. A. P. S., (51) vol. ix, 1841, pp. 1 Gen. Unio, (56) vol. iv, pp. 13, 16.

P. Maheyana.
T. A. P. S., (51) vol. ix, 1841, p. 14; Unio, (56) vol. iv, p. 14.

l. 1866, p. 184, pl. xxiv, f. 114; io, (244) vol. xi, p. 140, pl.

. vi, 1836, p. 97, pl. xxiii, f. ;, 1841, p. 13; Obs. Gen. Unio, 2, pl. xxiii, f. 109; (56) vol. iv,

l. vi, 1836, p. 91, pl. xxiii, f. 2; Obs. Gen. Unio, (29) vol. l. xxiii, f. 103.

.vi, 1837, p.101, pl. xxiii, f. 89;), (29) vol. ii, p. 101, pl. xxiii,

. ii, 1841, p. 34; T. A. P. S., 41, p. 13; J. A. N. S., (243) . 116; Obs. Gen. Unio, (56) 44) vol. xi, p. 72.

l. vi, 1866, p. 115, pl. xxii, f. Jnio, (244) vol. xi. p. 71, pl.

l. vi, 1835, p. 22, pl. xxiii, f. ;, 1841, p. 16; Obs. Gen. Unio, 2, pl. xxiii, f. 104; (56) vol. iv,

l. ix, 1841, pp. 13, 16; Obs. vol. iv, pp. 13, 16.

l. vi, 1868, p. 115; Obs. Gen. xi, p. 72.

ii, 1841, p. 34; T. A. P. S., l, p. 13; Obs. Gen. Unio, (56)

vi, 1836, p. 90, pl. xxiii, f. 78;), (29) vol. ii, p. 90, pl. xxiii,

ol. vi, 1868, p. 343, pl. liv, f. Jnio, (259) vol. xii, p. 103, pl.

l. vi, 1866, p. 185; Obs. Gen. . xi, p. 141.

l. vi, 1866, p. 184, 185; Obs. l) vol. xi, pp. 140, 141.

l. viii, 1856, p. 110; J. A. N. , 1866, p. 116, pl. xxii, f. 7; io, (244) vol. xi, p. 73, pl.

. ii, 1841, p. 34; T. A. P. S., l, p. 14; (55) vol. x, 1845, p. Unio, (56) vol. iv, pp. 14, 96.

Paludina umbilicata.
P. A. N. S., (113) vol. viii, 1856, p. 109; J. A. N. S., (243) vol. vi. 1866, p. 117, pl. xxii, f. 8; Obs. Gen. Unio, (244) vol. xi, p. 73, pl. xxii, f. 8.

P. unicolor.
T. A. P. S., (51) vol. ix, 1841, p. 14; J. A. N. S., (243) vol. vi, 1866, p. 116; Obs. Gen. Unio, (56) vol. iv, p. 14; (244) vol. xi, p. 73.

P. virens.
T. A. P. S., (27) vol. vi, 1836, p. 91, pl. xxiii, f. 93; Obs. Gen. Unio, (29) vol. ii, p. 91, pl. xxiii, f. 93.

P. viridis.
T. A. P. S., (27) vol. vi, 1836, p. 92; (51) vol. ix, 1841, p. 13; Obs. Gen. Unio, (29) vol. ii, p. 92; (56) vol. iv, p. 13.

P. vivipara.
T. A. P. S., (20) vol. v, 1834, p. 116; Obs. Gen. Unio, (21) vol. i, p. 228.

Paludomus loricata.
P. A. N. S., (113) vol. viii, 1856, p. 110; J. A. N. S., (214) vol. v, 1862, p. 256; (243) vol. vi, 1866, p. 118; Obs. Gen. Unio, (215) vol. ix, p. 78; (244) vol. xi, p. 75.

Paradoxides Harlani.
P. A. N. S., (132) vol. ix, 1851, p. 205.

PASITHEA.
(18) Con. Geol., 1833, pp. 99, 207.

P. aciculata.
(18) Con. Geol., 1833, p. 102, pl. iv, f. 82.

P. Claibornensis.
(18) Con. Geol., 1833, p. 104. pl. iv, f. 87.

P. guttula.
(18) Con. Geol., 1833, p. 104, pl. iv, f. 86.

P. lugubris.
(18) Con. Geol., 1833, p. 101, pl. iv, f. 81.

P. notata.
(18) Con. Geol., 1833, pp. 101, 102, pl. iv, f. 80.

P. secale.
(18) Con. Geol., 1833, p. 100, pl. iv, f. 79.

P. striata.
(18) Con. Geol., 1833, p. 102, 103, pl. iv, f. 83.

P. sulcata.
(18) Con. Geol., 1833, p. 103, pl. iv, f. 84.

P. umbilicata.
(18) Con. Geol., 1833, pp. 103, 207, pl. iv, f. 85.

PATELLA.
(18) Con. Geol., 1833, p. 96.

P. amœna.
P. A. P. S., (32) vol. i. 1840, p. 187; T. A. P. S., (34) vol. vii, 1840, p. 73; J. A. N. S., (243) vol. vi, 1866, p. 186; Obs. Gen. Unio, (244) vol. xi, p. 142.

P. Olealandii.
T. A. P. S., (34) vol. vii, 1840, p. 73.

P. clypeus.
T. A. P. S., (34) vol. vii, 1840, p. 74.

P. tessellata.
T. A. P. S., (34) vol. vii, 1840, p. 73.

P. testudinalis.
P. A. P. S., (32) vol. i, 1840, p. 187; T. A. P. S., (34) vol. vii, 1840, p. 73.

P. testudinaria.
T. A. P. S., (34) vol. vii, 1840, p. 73.

Patella ungarica.
(18) Con. Geol., 1833, p. 96.
P. virginea.
T. A. P. S., (34) vol. vii, 1840, p. 74.
PATELLOIDA.
T. A. P. S., (34) vol. vii, 1840, p. 73.
P. amœna.
T. A. P. S., (34) vol. vii, 1840, p. 73.
P. testudinalis.
P. A. P. S., (32) vol. i, 1840, p. 187; T. A. P. S., (34) vol. vii, 1840, p. 73.
P. testudinaria.
J. A. N. S., (243) vol. vi, 1866, p. 186; Obs. Gen. Unio, (244) vol. xi, p. 142.
PAXYODON.
T. A. P. S., (12) vol. iii, 1829, p. 443; Obs. Gen. Unio, (21) vol. i, p. 57.
P. ponderosus.
T. A. P. S., (27) vol. vi, 1838, p. 121; Obs. Gen. Unio, (29) vol. ii, p. 121.
PECTEN.
(18) Con. Geol., 1833, p. 89; P. A. N. S., (145) vol. x, 1858, p. 221.
P. Deshaysii.
(18) Con. Geol., 1833, p. 87, pl. iii, f. 66.
P. gracilis.
(18) Con. Geol., 1833, p. 88.
P. Lyelli.
(18) Con. Geol., 1833, p. 88, pl. iii, f. 67.
P. minutus.
(18) Con. Geol., 1833, p. 88.
P. varius.
P. A. N. S., (118) vol. ix, 1857, p. 17.
PECTUNCULUS.
(18) Con. Geol., 1833, p. 79.
P. Broderipii.
(18) Con. Geol., 1833, pp. 76, 77, pl. iii, f. 53.
P. deltoides.
(18) Con. Geol., 1833, p. 77, pl. iii, f. 55.
P. ellipsis.
(18) Con. Geol., 1833, pp. 78, 82, pl. iii, f. 56.
P. minor.
(18) Con. Geol., 1833, pp. 77, 78, pl. iii, f. 54.
P. obliqua.
(18) Con. Geol., 1833, pp. 78, 208, pl. iii, f. 57.
P. nanus.
(18) Con. Geol., 1833, p. 208.
PEDIPES.
(18) Con. Geol., 1833, p. 202.
Petricola fornicata.
(18) Con. Geol., 1833, p. 49.
P. pholadiformis.
(18) Con. Geol., 1833, p. 49.
PHYSA.
T. A. P. S., (51) vol. ix, 1841, p. 7; Obs. Gen. Unio, (56) vol. iv, p. 7.
P. acuta.
J. A. N. S., (243) vol. vi, 1866, p. 169; Obs. Gen. Unio, (244) vol. xi, p. 125.
P. Altonensis.
J. A. N. S., (243) vol. vi, 1866, p. 164, pl. xxiv, f. 82; Obs. Gen. Unio, (244) vol. xi, p. 120, pl. xxiv, f. 82.
P. anatina.
J. A. N. S., (243) vol. vi, 1866, p. 171, pl. xxiv, f. 94; Obs. Gen Unio, (244) vol. xi, p. 127, pl. xxiv, f. 94.
Physa ancillaria.
J. A. N. S., (243) vol. vi, 1866, pp. 165, Gen. Unio, (244) vol. xi, pp. 121, 1
P. aurea.
T. A. P. S., (27) vol. vi, 1834, p. 18, 1 (51) vol. ix, 1841, p. 8; J. A. N. S., vi, 1866, pp. 174, 177; Obs. Gen. vol. ii, pp. 18, 92, pl. xxiii, f. 106; (p. 8; (244) vol. xi, pp. 330, 331.
P. Blandii.
J. A. N. S, (243) vol. vi, 1866, pp. 1(xxiv, f. 88; Obs. Gen. Unio, (244) v 124, 131, pl. xxiv, f. 88.
P. brevispira.
J. A. N. S., (243) vol. vi, 1866, p. 173, 1 98; Obs. Gen. Unio, (244) vol. xi, xxiv, f. 98.
P. Carltonii.
J. A. N. S., (274) vol. viii, 1874, p. 63, pl. Obs. Gen. Unio, (275) vol. xiii, p. 6 f. 19.
P. concolor.
J. A. N. S., (243) vol. vi, 1866, p. 171; (Unio, (244) vol. xi, p. 127.
P. crocata.
J. A. N. S., (243) vol. vi, 1866, p. 169, p 90; Obs. Gen. Unio, (244) vol. xi, xxiv, f. 90.
P. Dorbigniana.
J. A. N. S., (243) vol. vi, 1866, p. 166, 1 85; Obs. Gen. Unio, (244) vol. xi, xxiv, f. 85.
P. elliptica.
T. A. P. S., (20) vol. v, 1834, p. 115, pl. J. A. N. S., (243) vol. vi, 1866, pp 170, 174, 176; Obs. Gen. Unio, (21 227, pl. xix, f. 83; (244) vol. xi, p 130, 132.
P. Febigerii.
J. A. N. S., (243) vol. vi, 1866, p. 174, 1 99; Obs. Gen. Unio, (244) vol. xi, xxiv, f. 99.
P. fontana.
J. A. N. S., (243) vol. vi, 1866, p. 177; (Unio, (244) vol. xi, p. 133.
P. fontinalis.
J. A. N. S., (243) vol. vi, 1866, p. 174; (Unio, (244) vol. xi, p. 130.
P. Forsheyi.
J. A. N. S., (243) vol. vi, 1866, p. 172, 1 95; Obs. Gen. Unio, (244) vol. xi, xxiv, f. 95.
P. fragilis.
J. A. N. S., (243) vol. vi, 1866, p. 163; (Unio, (244) vol. xi, p. 119.
P. globosa.
J. A. N. S., (243) vol. vi, 1866, p. 174; (Unio, (244) vol. xi, p. 130.
P. Grosvenorii.
J. A. N. S., (243) vol. vi, 1866, p. 175, 1 100; Obs. Gen. Unio, (244) vol. 1 pl xxiv, f. 100.
P. gyrina.
J. A. N. S., (243) vol. vi, 1866, p. 170; (Unio, (244) vol. xi, p. 126.

Physa Halei.
J. A. N. S., (243) vol. vi, 1866, pp. 165, 170, pl. xxiv, f. 83; Obs. Gen. Unio, (244) vol. xi, pp. 121, 126, pl. xxiv, f. 83.

P. Haenii.
J. A. N. S., (243) vol. vi, 1866, p. 165, pl. xxiv, f. 84; Obs. Gen. Unio, (244) vol. xi, p. 121, pl. xxiv, f. 84.

P. heterostropha.
T. A. P. S., (51) vol. ix, 1841, p. 7; J. A. N. S., (243) vol. vi, 1866, pp. 164, 165, 166, 168, 172, 173; Obs. Gen. Unio, (56) vol. iv, p. 7; (244) vol. xi, pp. 111, 119, 120, 121, 122, 124, 128, 129; P. A. N. S., (109) vol. viii, 1856, p. 81.

P. Hildrethiana.
P. A. P. S., (39) vol. ii, 1841, p. 32; T. A. P. S., (51) vol. ix, 1841, p. 7; Obs. Gen. Unio, (56) vol. iv, p. 7; (244) vol. xi, p. 121; J. A. N. S., (244) vol. vi, 1866, p. 165.

P. hordacea.
J. A. N. S., (243) vol. vi, 1866, pp. 176, 177, pl. xxiv, f. 102; Obs. Gen. Unio, (244) vol. xi, pp. 132, 133, pl. xxiv, f. 102.

P. inflata.
P. A. P. S., (39) vol. ii, 1841, p. 32; Obs. Gen. Unio, (56) vol. iv, p. 7; (244) vol. xi, p. 129; J. A. N. S., (243) vol. vi, 1866, p. 173.

P. Niagarensis.
J. A. N. S., (243) vol. vi, 1866, pp. 168, 173, 175, pl. xxiv, f. 97; Obs. Gen. Unio, (244) vol. xi, pp. 124, 129, 131, pl. xxiv, f. 97.

P. Nicklinii.
J. A. N. S., (243) vol. vi, 1866, p. 175, pl. xxiv, f. 101; Obs. Gen. Unio, (244) vol. xi, p. 131, pl. xxiv, f. 101.

P. Nuttallii.
J. A. N. S., (243) vol. vi, 1866, p. 171, pl. xxiv, f. 93; Obs. Gen. Unio, (244) vol. xi, p. 127, pl. xxiv, f. 93.

P. parva.
J. A. N. S., (243) vol. vi, 1866, p. 177, pl. xxiv, f. 104; Obs. Gen. Unio, (244) vol. xi, p. 133, pl. xxiv, f. 104.

P. Saffordii.
J. A. N. S., (243) vol. vi, 1866, p. 166, 167, pl. xxiv, f. 87; Obs. Gen. Unio, (244) vol. xi, pp. 122, 123, pl. xxiv, f. 87.

P. Smithsoniana.
J. A. N. S., (243) vol. iv, 1866, p. 169, pl. xxiv, f. 91; Obs. Gen. Unio, (244) vol. xi, p. 125, pl. xxiv, f. 91.

P. Showalterii.
J. A. N. S., (243) vol. vi, 1866, pp. 170, 172, 175, pl. xxiv, f. 92; Obs. Gen. Unio, (244) vol. xi, pp. 126, 128, 131, pl. xxiv, f. 92.

P. striata.
J. A. N. S., (243) vol. vi, 1866, p. 166; Obs. Gen. Unio, (244) vol. xi, p. 122.

P. tenuissima.
J. A. N. S., (243) vol. vi, 1866, p. 167, pl. xxiv, f. 86; Obs. Gen. Unio, (244) vol. xi, p. 123, pl. xxiv, f. 86.

P. Traskii.
J. A. N. S., (243) vol. vi, 1866, p. 168, pl. xxiv, f. 89; Obs. Gen. Unio, (244) vol. xi, p. 119, pl. xxiv, f. 89.

Physa triticea.
P. A. N. S., (109) vol. viii, 1856, p. 80; J. A. N. S., (243) vol. vi, 1866, p. 176, pl. xxiv, f. 103; Obs. Gen. Unio, (244) vol. xi, p. 132, pl. xxiv, f. 103.

P. Troostensis.
P. A. P. S., (39) vol. ii, 1841, p. 32.

P. Troostiana.
T. A. P. S., (51) vol. ix, 1841, p. 7; J. A. N. S., (243) vol. vi, 1866, pp. 169, 177; Obs. Gen. Unio, (56) vol. iv, p. 7; (244) vol. xi, pp. 125, 133.

P. venusta.
J. A. N. S., (243) vol. vi, 1866, p. 168, pl. xxiv, f. 89; Obs. Gen. Unio, (244) vol. xi, p. 124, pl. xxiv, f. 89.

P. virginea.
J. A. N. S., (243) vol. vi, 1866, pp. 164, 169, 172, 173; Obs. Gen. Unio, (244) vol. xi, pp. 120, 125, 128, 129.

P. Warreniana.
J. A. N. S., (243) vol. vi, 1866, pp. 163, 164, pl. xxiv, f. 81; Obs. Gen. Unio, (244) vol. xi, pp. 119, 120, pl. xxiv, f. 81.

P. Whitei.
J. A. N. S., (243) vol. vi, 1866, pp. 172, 173, pl. xxiv, f. 96; Obs. Gen. Unio, (244) vol. xi, pp. 128, 129, pl. xxiv, f. 96.

P. Wolfiana.
J. A. N. S., (274) vol. viii, 1874, p. 63, pl. xxi, f. 20; Obs. Gen. Unio, (275) vol. xiii, p. 67, pl. xxi, f. 20.

PILEOPSIS.
(18) Con. Geol, 1833, p. 96.

P. cornucopia.
(18) Con. Geol., 1833, p. 95.

PINNA.
P. A. N. S., (115) vol. viii, 1856, p. 214; (145) vol. x, 1858. p. 221.

PIRENA.
T. A. P. S., (81) vol. x, 1852, p. 295; Obs. Gen. Unio, (83) vol. v, p. 51.

PLAGIODON.
P. A. N. S., (107) vol. viii, 1856, p. 79; J. A. N. S., (133) vol. iii, 1857, p. 317; Obs. Gen. Unio, (150) vol vi, p. 37.

P. isocardioides.
P. A. N. S., (107) vol. viii, 1856, p. 79; J. A. N. S., (133) vol. iii, 1857, p. 348, pl. xxxii, f. 32; Obs. Gen. Unio, (150) vol. vi, p. 38, pl. xxxii, f. 32.

Planaria alba.
(18) Con. Geol., 1833, p. 124.

P. nitens.
(18) Con. Geol., 1833, p. 124, pl. iv, f. 113.

PLANORBIS.
(18) Con. Geol., 1833, p. 125; T. A. P. S., (51) vol. ix, 1841, p. 6; J. A. N. S., (243) vol. vi, 1866, p. 156; Obs. Gen. Unio, (56) vol. iv, p. 6; (244) vol. xi, p. 112.

P. ammon.
J. A. N. S., (243) vol. vi, 1866, p. 155; Obs. Gen. Unio, (244) vol. xi, p. 111; P. A. N. S., (109) vol. viii, 1856, p. 81.

Planorbis armigerus.
J. A. N. S., (243) vol. vi, 1866, p. 158; Obs. Gen. Unio, (244) vol. xi, p. 114.

P. bellus.
P. A. P. S., (39) vol. ii, 1841, p. 32; T. A. P. S., (51) vol. ix, 1841, p. 6; Obs. Gen. Unio, (56) vol. iv, p. 6.

P. bicarinatus.
J. A. N. S., (243) vol. vi, 1866, p. 158; Obs. Gen. Unio, (244) vol. xi, p. 114.

P. Billingsii.
J. A. N. S., (243) vol. vi, 1866, p. 159, pl. xxiii, f. 72; Obs. Gen. Unio, (244) vol. xi, p. 115, pl. xxiii, f. 72.

P. Brogniartiana.
T. A. P. S., (51) vol. ix, 1842, p. 24; Obs. Gen. Unio, (56) vol. iv, p. 24; P. A. P. S., (48) vol. ii, 1842, p. 242.

P. Buchanensis.
P. A. P. S., (39) vol. ii, 1841, p. 32: T. A. P. S., (51) vol. ix, 1841, p. 6; Obs. Gen. Unio, (56) vol. iv, p. 6.

P. corpulentus.
T. A. P. S., (51) vol. ix, 1841, p. 7; J. A. N. S., (243) vol. vi, 1866, p. 157; Obs. Gen. Unio, (56) vol. iv, p. 7; (244) vol. xi, p. 113.

P. lens.
T. A. P. S., (27) vol. vi, 1838, p. 68, pl. xxiii, f. 83; (51) vol. ix, 1841, pp. 6, 24; P. A. P. S., (48) vol. ii, 1842, p. 242; Obs. Gen. Unio, (29) vol. ii, p. 68, pl. xxiii, f. 83; (56) vol. iv, pp. 6, 24.

P. lenticularis.
T. A. P. S., (51) vol. ix, 1841, p. 6; Obs. Gen. Unio, (56) vol. iv, p. 6.

P. Newberryi.
P. A. N. S., (137) vol. x, 1858, p. 41.

P. nitidulus.
(18) Con. Geol., 1833, p. 125.

P. parvus.
J. A. N. S., (243) vol. vi, 1866, p. 159; Obs. Gen. Unio, (244) vol. xi, p. 115.

P. regularis.
P. A. P. S., (39) vol. ii, 1841, p. 32; T. A. P. S., (51) vol. ix, 1841, p. 6; Obs. Gen. Unio, (56) vol. iv, p. 6.

P. Traskii.
P. A. N. S., (109) vol. viii, 1856, p. 80; J. A. N. S., (243) vol. vi, 1866, p. 157, pl. xxiii, f. 70; Obs. Gen. Unio, (244) vol. xi, p. 113, pl. xxiii, f. 70.

P. trivolis.
P. A. N. S., (109) vol. viii, 1856, p. 81.

P. trivolvis.
T. A. P. S., (51) vol. ix, 1841, p. 6; J. A. N. S., (243) vol. vi, 1866, p. 155; Obs. Gen. Unio, (56) vol. iv, p. 6; (244) vol. xi, p. 111.

P. Wheatleyi.
P. A. N. S.. (137) vol. x, 1858, p. 41; J. A. N. S., (243) vol. vi, 1866, p. 158, pl. xxiii, f. 71; Obs. Gen. Unio, (244) vol. xi, p. 114, pl. xxiii, f. 71.

PLATIRIS.
T. A. P. S., (27) vol. vi, 1838, pp. 117, 118, 141, 150; Obs. Gen. Unio, (29) vol. ii, pp. 117, 118, 141, 150.

PLEIODON.
T. A. P. S., (27) vol. vi, 1838, p. 141; Obs. Ge[illegible] Unio, (29) vol. ii, p. 141.

P. Macmurtrisi.
T. A. P. S., (27) vol. vi, 1838, p. 141; Obs. [illegible] Unio, (29) vol. ii, p. 141.

PLEUROTOMA.
(18) Con. Geol., 1833, p. 138; P. A. P. S., (48) ii, 1842, p. 242.

P. Baumontii.
(18) Con. Geol., 1833, p. 134, pl. iv, f. 127.

P. cœlata.
(18) Con. Geol., 1833, p. 132, pl. iv, f. 122.

P. Childreni.
(18) Con. Geol., 1833, p. 137, pl. iv, f. 132.

P. comma.
(18) Con. Geol., 1833, p. 133.

P. Desnoyersii.
(18) Con. Geol., 1833, p. 135, pl. iv, f. 128.

P. Hæninghausii.
(18) Con. Geol., 1833, p. 135, pl. iv, f. 129.

P. Lesueurii.
(18) Con. Geol., 1833, p. 137, pl. iv, f. 133.

P. Lonsdalii.
(18) Con. Geol., 1833, p. 132, pl. iv, f. 124.

P. monilifera.
(18) Con. Geol., 1833, p. 133, pl. iv, f. 126.

P. obliqua.
(18) Con. Geol., 1833, p. 136, pl. iv, f. 131.

P. rugosa.
(18) Con. Geol., 1833, p. 136, pl. iv, f. 130.

P. Sayi.
(18) Con. Geol., 1833, p. 133, pl. iv, f. 125.

P. semicolon.
(18) Con. Geol., 1833, p. 134.

Pleuromarium tuberculosum.
(18) Con. Geol., 1833, p. 124.

PLICATULA.
(18) Con. Geol., 1833, p. 90.

P. Mantilli.
(18) Con. Geol., 1833, p. 89, pl. iii, f. 68.

POLYGYRA.
T. A. P. S., (82) vol. x, 1852, p. 304; Obs. Unio, (83) vol. v, p. 60.

P. Dorfeuilliana.
T. A. P. S., (27) vol. vi, 1838, pp. 107, 1[illegible] xxiv, f. 118; (82) vol. x, 1852, p. 307; Gen. Unio, (29) vol. ii, pp. 107, 108, pl. [illegible] f. 118; (83) vol. v, p. 60.

P. fatigiata.
T. A. P. S., (27) vol. vi, 1838, pp. 107, 108; Gen. Unio, (29) vol. ii, pp. 107, 108.

P. plicata.
T. A. P. S., (27) vol. vi, 1838, pp. 107, 108; Gen. Unio, (29) vol. ii, pp. 107, 108.

P. Troostiana.
T. A. P. S., (27) vol. vi, 1838, p. 107, pl. [illegible] 119; (82) vol. x, 1852, p. 304; Obs. Gen. [illegible] (29) vol. ii, p. xxiv, f. 119; (83) vol. v, [illegible]

Polyphemus glans.
T. A. P. S., (20) vol. v, 1833, p. 85; Obs. [illegible] Unio, (21) vol. i, p. 197.

POMPHOLYX.
P. A. N. S., (109) vol. viii, 1856, p. 80; J. A. [illegible] S., (243) vol. vi, 1866, p. 156; Obs. Gen. [illegible] (244) vol. xi, p. 112.

ns.
(109) vol. viii, 1856, p. 80; J. A. N.
) vol. vi, 1866, p. 156, pl. xxiii, f. 69;
m. Unio, (244) vol. xi, p. 112, pl. xxiii,

s.
(106) vol. viii, 1856, p. 78.

(106) vol. viii, 1856, p. 78.
ilis.
eol., 1833, p. 131.

(12) vol. iii, 1829, p. 443; Obs. Gen.
21) vol. i, p. 57.

(213) vol. v, 1862, p. 206; Obs. Gen.
215) vol. ix, p. 28.

(27) vol. vi, 1838, p. 121; Obs. Gen.
29) vol. ii, p. 121.

(27) vol. vi, 1838, p. 121; J. A. N. S.,
l. v, 1863, p. 377; Obs. Gen. Unio,
. ii, p. 121; (222) vol. x, p. 13.

(145) vol. x, 1858, p. 221.

eol., 1833, p. 74.

(214) vol. v, 1862, p. 232; Obs. Gen.
215) vol. ix, p. 54.

eol., 1833, p. 100.

ol., 1833, pp. 152, 154.

ol., 1833, p. 156.

ol., 1833, p. 154, pl. v, f. 160.
i.
ol., 1833, p. 155, pl. v, f. 161.

ol., 1833, p. 154.

ol., 1833, p. 154.

ol, 1833, p. 155, pl. v, f. 162.

(130) vol. ix, 1857, p. 173.
ta.
ol., 1833, p. 205.

ol., 1833, pp. 100, 127.

don, (59) vol. xviii, 1850, p. 197; J.
, (243) vol. vi, 1866, p. 118; Obs. Gen.
44) vol. xi, p. 74.

243) vol. vi, 1866, p. 118, pl. xxii, f.
. Gen. Unio, (244) vol. xi, p. 74, pl.
0.

243) vol. vi, 1866, p. 118; Obs. Gen.
44) vol. xi, p. 75.

(243) vol. vi, 1866, p. 118; Obs. Gen.
44) vol. xi, p. 75.

ROSTELLARIA.
(18) Con. Geol., 1833, p. 158.
R. columbata.
(18) Con. Geol., 1833, p. 159.
R. curvirostris.
(18) Con. Geol., 1833, p. 159.
R. Ouvieri.
(18) Con. Geol., 1833, p. 160, pl. v, f. 165.
R. decussata.
(18) Con. Geol., 1833, p. 160.
R. fissurella.
(18) Con. Geol., 1833, pp. 159, 160.
R. Lamarckii.
(18) Con. Geol., 1833, p. 158, pl. v, 164.
R. longirostra.
(18) Con. Geol., 1833, p. 159.
R. macroptera.
(18) Con. Geol., 1833, p. 159.
R. pes-pelecani.
(18) Con. Geol., 1833, p. 160.
ROTELLA.
(18) Con. Geol., 1833, p. 214.
R. nana.
(18) Con. Geol., 1833, p. 214, pl. vi, f. 225.
Sanguinolaria compressa.
(18) Con. Geol., 1833, p. 39.
SARACENARIA.
(18) Con. Geol., 1833, p. 219.
SCALARIA.
(18) Con. Geol., 1833, p. 117.
S. carinata.
(18) Con. Geol., 1833, p. 116, pl. iv, f. 103.
S. lamellosa.
(18) Con. Geol., 1833, p. 116.
S. multistriata.
(18) Con. Geol., 1833, p. 117.
S. planulata.
(18) Con. Geol., 1833, p. 115, pl. iv, f. 102.
S. quinquefasciata.
(18) Con. Geol., 1833, p. 116.
S. semicosta.
(18) Con. Geol, 1833, p. 116.
SCAPHITES.
P. A. N. S., (145) vol. x, 1858, p. 221.
SCHIZOCHILUS.
T. A. P. S., (81) vol. x, 1852, p. 295; Obs. Gen. Unio, (83) vol. v, p. 51; (215) vol. ix, p. 67; P. A. N. S., (182) vol. xii, 1860, p. 186; J. A. N. S., (214) vol. v, 1862, p. 245.
S. Showalterii.
P. A. N. S., (178) vol. xii, 1860, p. 93.
SCHIZOSTOMA.
P. A. P. S., (48) vol. ii, 1842, p. 242; T. A. P. S., (51) vol. ix, 1842, p. 26; (55) vol. x, 1845, pp. 67, 93; (81) vol. x, 1852, p. 295; P. A. N. S., (182) vol. xii, 1860, p. 186; J. A. N. S., (214) vol. v, 1862, pp. 218, 243, 245, 246; (243) vol. vi, 1866, p. 152; Obs. Gen. Unio, (56) vol. iv, pp. 26, 67, 93; (83) vol. v, p. 51; (215) vol. ix, pp. 40, 65, 67, 68; (244) vol. xi, p. 108.
S. Alabamense.
P. A. N. S., (182) vol. xii, 1860, p. 187; J. A. N. S., (214) vol. v, 1862, p. 250, pl. xxxv, f. 54; Obs. Gen. Unio, (215) vol. ix, p. 72, pl. xxxv, f. 54.

Schizostoma Babylonicum.
T. A. P. S., (55) vol. x, 1845, p. 94, pl. ix, f. 54; J. A. N. S., (214) vol. v, 1862, p. 248; Obs. Gen. Unio, (56) vol. iv, p. 94, pl. ix, f. 54; (215) vol. ix, f. 70.

S. Buddii.
T. A. P. S., (55) vol. x, 1845, p. 94, pl. ix, f. 53; J. A. N. S., (214) vol. v, 1862, p. 252; Obs. Gen. Unio, (56) vol. iv, p. 94, pl. ix, f. 53; (215) vol. ix, p. 74.

S. bulbosa.
J. A. N. S., (214) vol. v, 1862, p. 253; Obs. Gen. Unio, (215) vol. ix, p. 75.

S. carinifera.
J. A. N. S., (243) vol. vi, 1866, p. 150; Obs. Gen. Unio, (244) vol. xi, p. 106.

S. castanea.
P. A. N. S., (182) vol. xii, 1860, p. 186; J. A. N. S., (214) vol. v, 1862, p. 247, pl. xxxv, f. 50; Obs. Gen. Unio, (215) vol. ix, p. 69, pl. xxxv, f. 50.

S. constricta.
T. A. P. S., (55) vol. x, 1845, p. 94, pl. ix, f. 55; P. A. N. S., (182) vol. xii, 1860, p. 186; J. A. N. S., (214) vol. v, 1862, p. 246; (243) vol. vi, 1866, p. 149; Obs. Gen. Unio, (56) vol. iv, p. 94, pl. ix, f. 55; (215) vol. ix, p. 68; (244) vol. xi, p. 105.

S. excisa.
J. A. N. S., (214) vol. v, 1862, p. 250; Obs. Gen. Unio, (215) vol. ix, p. 72.

S. funiculatum.
T. A. P. S., (55) vol. x, 1845, p. 95, pl. ix, f. 56; Obs. Gen. Unio, (56) vol. iv, p. 95, pl. ix, f. 56.

S. glandula.
P. A. N. S., (182) vol. xii, 1860, p. 187; J. A. N. S., (214) vol. v, 1862, pp. 249, 252, pl. xxxv, f. 53.

S. glans.
P. A. N. S., (182) vol. xii, 1860, p. 187; J. A. N. S., (214) vol. v, 1862, pp. 248, 249, 252, pl. xxxv, f. 52; Obs. Gen. Unio, (215) vol. ix, pp. 70, 71, 74, pl. xxxv, f. 52.

S. globosa.
P. A. N. S., (182) vol. xii, 1860, p. 187; J. A. N. S., (214) vol. v, 1862, p. 252, pl. xxxv, f. 58; Obs. Gen. Unio, (215) vol. ix, p. 74, pl. xxxv, f. 58.

S. globula.
J. A. N. S., (214) vol. v, 1862, p. 238; Obs. Gen. Unio, (215) vol. ix, p. 60.

S. Hartmanii.
P. A. N. S., (182) vol. xii, 1860, p. 187; J. A. N. S., (214) vol. v, 1862, p. 247, pl. xxxv, f. 51; Obs. Gen. Unio, (215) vol. ix, p. 69, pl. xxxv, f. 51.

S. incisa.
P. A. N. S., (182) vol. xii, 1860, p. 186.

S. laciniatum.
T. A. P. S., (55) vol. x, 1845, p. 95, pl. ix, f. 57; Obs. Gen. Unio, (56) vol. iv, p. 95, pl. ix, f. 57; (215) vol. ix, p. 75; J. A. N. S., (214) vol. v, 1862, p. 253.

S. Lewisii.
J. A. N. S., (274) vol. viii, 1874, p. 61, pl. xxi, f. 16; Obs. Gen. Unio, (275) vol. xiii, p. 65, pl. xxi, f. 16.

Schizostoma pagoda.
T. A. P. S., (55) vol. x, 1845, p. 93, pl. ix, f. 52; J. A. N. S., (214) vol. v, 1862, p. 247; Obs. Gen. Unio, (56) vol. iv, p. 93, pl. ix, f. 52; (215) vol. ix, p. 69.

S. pumila.
P. A. N. S., (182) vol. xii, 1860, p. 187; J. A. N. S., (214) vol. v, 1862, p. 252, pl. xxxv, f. 57; Obs. Gen. Unio, (215) vol. ix, p. 74, pl. xxxv, f. 57.

S. Showalterii.
J. A. N. S., (214) vol. v, 1862, p. 246, pl. xxxv, f. 49; (243) vol. vi, 1866, p. 149, pl. xxiii, f. 54; Obs. Gen. Unio, (215) vol. ix, p. 68, pl. xxxv, f. 49; (244) vol. xi, p. 105, pl. xxiii, f. 54.

S. Spillmanii.
P. A. N. S., (193) vol. xiii, 1861, p. 54; J. A. N. S., (214) vol. v, 1862, p. 250, pl. xxxv, f. 55; Obs. Gen. Unio, (215) vol. ix, p. 72, pl. xxxv, f. 55.

S. virens.
P. A. N. S., (182) vol. xii, 1860, p. 187; J. A. N. S., (214) vol. v, 1862, p. 253, pl. xxxv, f. 59; Obs. Gen. Unio, (215) vol. ix, p. 75, pl. xxxv, f. 59.

S. Wetumpkaensis.
P. A. N. S., (182) vol. xii, 1860, p. 187; J. A. N. S., (214) vol. v, 1862, p. 251, pl. xxxv, f. 56; Obs. Gen. Unio, (215) vol. ix, p. 73, pl. xxxv, f. 56.

S. Wheatleyi.
J. A. N. S., (258) vol. vi, 1868, p. 342, pl. liv, f. 27; Obs. Gen. Unio, (259) vol. xii, p. 192, pl. liv, f. 27.

Scutella crustuloides.
(18) Con. Geol., 1833, p. 25.

Serpula granifera.
(18) Con. Geol., 1833, p. 37.

S. granulata.
(18) Con. Geol., 1833, p. 37.

S. ornata.
(18) Con. Geol., 1833, p. 37, pl. i, f. 5.

SIGARETUS.
(18) Con. Geol., 1833, p. 105.

SILIQUARIA.
P. A. N. S., (145) vol. x, 1858, p. 221.

S. Claibornensis.
(18) Con. Geol., 1833, p. 33, pl. i, f. 1.

SOLARIUM.
(18) Con. Geol., 1833, p. 123.

S. bilineatum.
(18) Con. Geol., 1833, p. 119, pl. iv, f. 108.

S. canaliculatum.
(18) Con. Geol., 1833, p. 120.

S. cancellatum.
(18) Con. Geol., 1833, p. 121, pl. iv, f. 110.

S. elegans.
(18) Con. Geol., 1833, p. 121, pl. iv, f. 109.

S. granulatum.
(18) Con. Geol., 1833, p. 122, pl. iv, f. 111.

S. Henrici.
(18) Con. Geol., 1833, p. 119, pl. iv, f. 107.

S. ornatum.
(18) Con. Geol., 1833, p. 120, pl. iv, f. 108.

S. variegatum.
(18) Con. Geol., 1833, pp. 121, 122.

Solecurtus Blainvillii.
(18) Con. Geol., 1833, p. 39, pl. xxxix, f. 7.

nis.
Con. Geol., 1833, p. 39.
illii.
Con. Geol., 1833, p. 208.
s.
Con. Geol., 1833, p. 208.
s Colombianus.
. P. S., (33) vol. i, 1840, p. 227; T. A. P. S., 36) vol. vii, 1840, p. 257, pl. ix, f. 11.

. P. S., (27) vol. vi, 1838, pp. 114, 118, 141, 150; Obs. Gen. Unio, (29) vol. ii, pp. 114, 118, 141, 50.

N. S., (242) vol. vi, 1866, p. 35, pl. xii, f. 31; Obs. Gen. Unio, (244) vol. xi, p. 39, pl. xii, 31.
nelestis.
. P. S., (27) vol. vi, 1838, pp. 142, 150; J. A. N. S., (133) vol. iii, 1857, p. 320; (242) vol. vi, 1866, 37; Obs. Gen. Unio, (29) vol. ii, pp. 142, 50; (150) vol. vi, p. 40; (244) vol. xi, p. 41.
is.
. P. S., (27) vol. vi, 1838, pp. 142, 150; Obs. Gen. Unio, (29) vol. ii, pp. 142, 150.
ia.
N. S., (242) vol. vi, 1866, p. 37, pl. xiii, f. 35; Obs. Gen. Unio, (244) vol. xi, p. 41, pl. xiii, 35.
nsis.
N. S., (242) vol. vi, 1866, p. 64, pl. xx, f. 58; Obs. Gen. Unio, (244) vol. xi, p. 68, pl. xx, f. 58.
s.
. P. S., (27) vol. vi, 1838, pp. 141, 150; Obs. Gen. Unio, (29) vol. ii, pp. 141, 150.
nensis.
N. S., (242) vol. vi, 1866, p. 36, pl. xiii, f. 33; Obs. Gen. Unio, (244) vol. xi, p. 40, pl. xii, f. 33.
s.
. P. S., (27) vol. vi, 1838, pp. 141, 150; J. A. N. S., (242) vol. vi, 1866, pp. 36, 64; Obs. Gen. Unio, (29) vol. ii, pp. 141, 150; (244) vol. xi, pp. 40, 68.
nus.
. P. S., (27) vol. vi, 1838, pp. 142, 150; Obs. Gen. Unio, (29) vol. ii, pp. 142, 150.
formis.
. P. S., (27) vol. vi, 1838, pp. 142, 150; Obs. Gen. Unio, (29) vol. ii, pp. 142, 150.
tubanella.
Con. Geol. 1833, p. 36, pl. i, f. 4.
ILLA.
Con. Geol. 1833, p. 105.
BASIS.
. N. S., (197) vol. xiii, 1861, p. 96; J. A. N. S., (214) vol. v, 1862, pp. 218, 264, 268; Obs. Gen. Unio, (215) vol. ix, pp. 40, 86, 90.
sia.
. N. S., (214) vol. v, 1862, p. 355, pl. xxxix, f. 228; Obs. Gen. Unio, (215) vol. ix, p. 177, pl. xxxix, f. 228.
s.
A. N. S., (197) vol. xiii, 1861, p. 96; J. A. N. S., (214) vol. v, 1862, p. 265, pl. xxxv, f. 75; Obs. Gen. Unio, (215) vol. ix, p. 87. pl. xxxv, f. 75.

Strephobasis Clarkii.
P. A. N. S., (197) vol. xiii, 1861, p. 96; J. A. N. S., (214) vol. v, 1862, pp. 265, 355, pl. xxxv, f. 76; Obs. Gen. Unio, (215) vol. ix, pp. 87, 177, pl. xxxv, f. 76.

S. Lyonii.
J. A. N. S., (243) vol. vi, 1866, p. 151, pl. xxiii, f. 65; Obs. Gen. Unio, (244) vol. xi, p. 107, pl. xxiii, f. 65.

S. olivaria.
J. A. N. S., (214) vol. v, 1862, pp. 290, 356, pl. xxxix, f. 229; (243) vol. vi, 1866, p. 151; Obs. Gen. Unio, (215) vol. ix, pp. 112, 178, pl. xxxix, f. 229; (244) vol. xi, p. 107.

S. solida.
J. A. N. S., (214) vol. v, 1862, pp. 266, 356, pl. xxxv, f. 77; Obs. Gen. Unio, (215) vol. ix, pp. 88, 178, pl. xxxv, f. 77.

S. Spillmanii.
P. A. N. S., (197) vol. xiii, 1861, p. 96; J. A. N. S., (214) vol. v, 1862, p. 264, pl. xxxv, f. 74; (243) vol. vi, 1866, p. 151; Obs. Gen. Unio, (215) vol. ix, p. 86, pl. xxxv, f. 74; (244) vol. xi, p. 107.

Strombus amplus.
(18) Con. Geol., 1833, p. 159.

STROPHITUS.
J. A. N. S., (221) vol. v, 1863, pp. 447, 450; Obs. Gen. Unio, (222) vol. x, pp. 83, 86.

S. undulata.
J. A. N. S., (221) vol. v, 1863, p. 450; Obs. Gen. Unio, (222) vol. x, p. 86.

STREPTAXIS.
T. A. P. S., (38) vol. vii, 1841, p. 460.

SUCCINEA.
T. A. P. S., (51) vol. ix, 1841, p. 3; Obs. Gen. Unio, (56) vol. iv, p. 3.

S. aperta.
T. A. P. S., (27) vol. vi, 1837, p. 101, pl. xxiii, f. 107; Obs. Gen. Unio, (29) vol. ii, p. 101, pl. xxiii, f. 107.
J. A. N. S., (243) vol. vi, 1866, p. 181; Obs. Gen. Unio, (244) vol. xi, p. 137.

S. aurea.
P. A. P. S., (39) vol. ii, 1841, p. 32; T. A. P. S., (51) vol. ix, 1841, pp. 4, 5; J. A. N. S., (243) vol. vi, 1866, pp. 180, 181; Obs. Gen. Unio, (56) vol. iv, pp. 4, 5; (244) vol. xi, pp. 136, 137.

S. avara.
T. A. P. S., (51) vol. ix, 1841, p. 5; J. A. N. S., (243) vol. vi, 1866, p. 181; Obs. Gen. Unio, (56) vol. iv, p. 5; (244) vol. xi, p. 137.

S. campestris.
T. A. P. S., (51) vol. ix, 1841, p. 6; J. A. N. S., (243) vol. vi, 1866, pp. 180, 181, 182; Obs. Gen. Unio, (56) vol. iv, p. 6; (244) vol. xi, pp. 136, 137, 138.

S. Candeana.
P. A. P. S., (39) vol. ii, 1841, p. 32; T. A. P. S., (51) vol. ix, 1841, p. 5; Obs. Gen. Unio, (56) vol. iv, p. 5.

S. Concordialis.
J. A. N. S., (243) vol. vi, 1866, p. 178; Obs. Gen. Unio, (244) vol. xi, p. 134.

Succinea Dorbigniana.
T. A. P. S., vol. ix, 1841, p. 4; Obs. Gen. Unio, (56) vol. iv, p. 4.

S. Forsheyi.
J. A. N. S., (243) vol. vi, 1866, p. 178, pl. xxiv, f. 107; Obs. Gen. Unio, (244) vol. xi, p. 134, pl. xxiv, f. 107.

S. fulgens.
P. A. P. S., (39) vol. ii, 1841, p. 32; T. A. P. S., (51) vol. ix, 1841, p. 5; Obs. Gen. Unio, (56) vol. iv, p. 5.

S. gracilis.
P. A. P. S., (39) vol. ii, 1841, p. 31; T. A. P. S., (51) vol. ix, 1841, p. 3; Obs. Gen. Unio, (56) vol iv, p. 3.

S. Grosvenorii.
J. A. N. S., (243) vol. vi, 1866, p. 179, pl. xxiv, f. 108: Obs. Gen. Unio, (244) vol. xi, p. 135, pl. xxiv, f. 108.

S. Halei.
J. A. N. S., (243) vol. vi, 1866, p. 180, pl. xxiv, f. 110; Obs. Gen. Unio, (244) vol. xi, p. 136, pl. xxiv, f. 110.

S. Haydeni.
J. A. N. S., (243) vol. vi, 1866, p. 178; Obs. Gen. Unio, (244) vol. xi, p. 134.

S. inflata.
P. A. P. S., (39) vol. ii, 1841, p. 32; T. A. P. S., (51) vol. ix, 1841, p. 5; J. A. N. S., (243) vol. vi, 1866, pp. 181, 182; Obs. Gen. Unio, (56) vol. iv, p. 5; (244) vol. xi, pp. 137, 138.

S. lineata.
J. A. N. S., (243) vol. vi, 1866, pp. 179, 180; Obs. Gen. Unio, (244) vol. xi, pp. 135, 136.

S. luteola.
J. A. N. S., (243) vol. vi, 1866, p. 180; Obs. Gen. Unio, (244) vol. xi, p. 136.

S. Mooresiana.
J. A. N. S., (243) vol. vi, 1866, p. 179, pl. xxiv, f. 109: Obs. Gen. Unio, (244) vol. xi, p. 135, pl. xxiv, f. 109.

S. Nuttalliana.
P. A. P. S., (39) vol. ii, 1841, p. 32; T. A. P. S., (51) vol. ix, 1841, pp. 3, 4; J. A. N. S., (243) vol. vi, 1866, pp. 180, 181, 182; Obs. Gen. Unio, (56) vol. iv, pp. 3, 4; (244) vol. xi, pp. 136, 137, 138.

S. obliqua.
T. A. P. S., (51) vol. ix, 1841, pp. 4, 5; J. A. N. S., (243) vol. vi, 1866, pp. 181, 182; Obs. Gen. Unio, (56) vol. iv, pp. 4, 5; (244) vol. xi, pp. 137, 138.

S. Oregonensis.
P. A. P. S., (39) vol. ii, 1841, p. 32; T. A. P. S., (51) vol. ix, 1841, p. 5; J. A. N. S., (243) vol. vi, 1866, pp. 180, 181, 182; Obs. Gen. Unio, (56) vol. iv, p. 5; (244) vol. xi, pp. 136, 137, 138.

S. oralis.
T. A. P. S., (51) vol. ix, 1841, pp. 4, 5; J. A. N. S., (243) vol. vi, 1866, pp. 181, 182; Obs. Gen. Unio, (56) vol. iv, pp. 4, 5; (244) vol. xi, pp. 137, 138.

S. pellucida.
J. A. N. S., (243) vol. vi, 1866, p. 178, pl. xxiv, f. 106; Obs. Gen. Unio, (244) vol. xi, p. 134, pl. xxiv, f. 106.

Succinea putris.
T. A. P. S., (51) vol. ix, 1841, p. 4; Obs. Ge Unio, (56) vol. iv, p. 4.

S. retusa.
T. A. P. S., (20) vol. v, 1834, p. 117, pl. xix, f. (51) vol. ix, 1841, p. 4; J. A. N. S., (243) vi, 1866, pp. 178, 181; Obs. Gen. Unio vol. i, p. 229, pl. xix, f. 86; (56) vol. iv, (244) vol. xi, pp. 134, 137.

S. rusticana.
J. A. N. S., (243) vol. vi, 1866, p. 182; Obs. Unio, (244) vol. xi, p. 138.

S. Totteniana.
P. A. P. S., vol. ii, 1841, p. 32; T. A. P. S vol. ix, 1841, p. 4; J. A. N. S., (243) v 1866, pp. 180, 181, 182; Obs. Gen. Uni vol. iv, p. 4; (244) vol. xi, pp. 136, 137,

S. vermeta.
T. A. P. S., (51) vol. ix, 1841, p. 4; J. A. (243) vol. vi, 1866, p. 178; Obs. Gen. (56) vol. iv, p. 4; (244) vol. xi, p. 4.

S. Wardiana.
P. A. P. S., (39) vol. ii, 1841, p. 31; T. A. (51) vol. ix, 1841, p. 3; J. A. N. S., (24 vi, 1841, pp. 178, 180, 181; Obs. Gen. (56) vol. iv, p. 3; (244) vol. xi, pp. 134 137.

S. Wilsonii.
J. A. N. S., (243) vol. vi, 1866, pp. 177, 1 xxiv, f. 105; Obs. Gen. Unio, (244) v pp. 133, 135, pl. xxiv, f. 105.

SYMPHYNOTA.
T. A. P. S., (12) vol. iii, 1829, p. 424, 442; (1 iv, 1830, pp. 67, 68; (27) vol. vi, 1838, p 116, 117; Obs. Gen. Unio, (21) vol. i, 56, 77, 78; (29) vol. ii, pp. 115, 116, 117.

S. alata.
T. A. P. S., (12) vol. iii, 1829, pp. 445, 44 (15) vol. iv, 1830, p. 67, 1831, p. 106; (2 v, p. 26; (27) vol. vi, 1838, p. 121; Obs Unio, (21) vol. i, pp. 59, 61, 62, 77; (2 ii, p. 121.

S. Benedictensis.
T. A. P. S., (20) vol. v, 1834, p. 104, pl. xvi. (27) vol. vi, 1838, p. 137; Obs. Gen. Un vol. i, p. 216, pl. xvi, f. 48; (29) vol. ii,

S. Bengalensis.
T. A. P. S., (27) vol. vi, 1835, p. 20; Obs. Unio, (29) vol. ii, p. 20.

S. bialata.
T. A. P. S., (12) vol. iii, 1829, p. 445, pl. xiv (15) vol. iv, 1830, pp. 68, 100; (20) vol. v pp. 75, 105; (27) vol. vi, 1834, p. 3, 18 117, 136; Obs. Gen. Unio, (21) vol. i, 78, 110, 117, 187, pl. xiv, f. 24; (29) vol. 3, 117, 136.

S. bilineata.
T. A. P. S., (15) vol. iv, 1830, p. 98, pl. xi (27) vol. vi, 1838, p. 133; Obs. Gen. Un vol. i, p. 108, pl. xi, f. 19; (29) vol. ii, p

S. complanata.
T. A. P. S., (12) vol. iii, 1829, p. 448; (15) v 1831, p. 106; (20) vol. v, 1832, p. 28; (2 vi, 1836, p. 55, 1838, p. 124; Obs. Gen. (21) vol. i, pp. 62, 116, 140; (29) vol. 55, 134.

rresse.
2) vol. iii, 1829, pp. 429, 450; (15) 830, p. 67; (20) vol. v, 1832, p. 25; i, 1838, p. 121; (79) vol. x, 1852, pp. Obs. Gen. Unio, (21) vol. i, pp. 43, ; (27) vol. vi, 1838, p. 121; (83) vol. p. 257, 294.

2) vol. iii, 1829, p. 456; (15) vol. iv, ; Obs. Gen. Unio, (21) vol. i, pp.

(20) vol. v, 1853, p. 75, pl. xi, f. 33; i, 1834, p. 3, 1838, p. 136; Obs. Gen.) vol. i, p. 187, pl. xi, f. 33; (29) vol. 36.

0) vol. v, 1832, p. 41; (27) vol. vi, 26; Obs. Gen. Unio, (21) vol. i, p. , f. 12; (29) vol. ii, p. 126.

2) vol. iii, 1829, pp. 452, 454; (27) 836, p. 55, 1838, p. 121; Obs. Gen.) vol. i, pp. 66, 68; (29) vol. ii, pp.

5) vol. iv, 1830, p. 99, pl. xiv, f. 28; i, 1838, p. 121; Obs. Gen. Unio, (21) 09, pl. xiv, f. 28; (29) vol. ii, p. 121.

2) vol. iii, 1829, pp, 413, 444, pl, xiii,) vol. iv, 1830, pp. 68, 100; (27) vol. p. 121; Obs. Gen. Unio, (21) vol. i, 60, 78, 110, pl. xiii, f. 23; (29) vol.

0) vol. v, 1832, p. 43, pl. v, f. 14; 1833,) vol. vi, 1838, pp. 118, 137; Obs. o, (21) vol. i, pp. 155, 187, pl. v, f. 14; i, pp. 118, 137.

2) vol. iii, 1829, p. 455; (15) vol. iv, 9; (27) vol. vi, 1838, p. 126; Obs. o, (21) vol. i, pp. 69, 109; (29) vol. ii,

79) vol. x, 1852, p. 257; Obs. Gen.) vol. v, p. 13.

2) vol. iii, 1829, pp. 414, 453, pl. xi, f. rol. vi, 1838, pp. 131, 133; J. A. N. rol. v, 1863, p. 441; Obs. Gen. Unio, i, pp. 28, 67, pl. xi, f 21; (29) vol. ii, 33; (222) vol. x, p. 77.

0) vol. v, 1832, p. 42, pl. v, f. 13; (27) 38, p. 137; Obs. Gen. Unio, (21) vol. pl. v, f. 13; (29) vol. ii, p. 137.

145) vol. x, 1858, p. 221; J. A. N. S., . v, 1863, p. 383; Obs. Gen. Unio, . x, p. 19.
t.
33) vol. i, 1840, p. 227.

(214) vol. v, 1862, p. 260; Obs. Gen. 15) vol. ix, p. 91.

Tellinites Humboldtiana.
T. A. P. S., (36) vol. vii, 1840, p. 260, pl. x, f. 14.
T. problematicus.
T. A. P. S., (36) vol. vii, 1840, p. 260.
TEREBRA.
(18) Con. Geol, 1833, p. 167.
T. costata.
(18) Con. Geol, 1833, p. 166, pl. v, f 172.
T. gracilis.
(18) Con. Geol, 1833, p. 166, pl. v, f. 171.
T. venusta.
(18) Con. Geol, 1833, p. 167, pl. v, f. 173.
TEREBRATULA.
P. A. N. S., (145) vol. x, 1858, p. 218.
T. convexa.
T. A. P. S., (36) vol. vii, 1840, p. 259.
T. Oubaensis.
T. A. P. S., (36) vol. vii, 1840, p. 258.
T. Poeyana.
P. A. P. S., (33) vol. i, 1840, p. 227; T. A. P. S. (36) vol. vii, 1840, p. 260.
T. prælonga.
T. A. P. S., (36) vol. vii, 1840, p. 260.
T. Tayloriana.
P. A. P. S., (33) vol. i, 1840, p. 227; T. A. P. S., (36) vol. vii, 1840, p. 259, pl. x, f. 12.
Teredo antenautæ.
(18) Con. Geol., 1833, p. 38.
T. navalis.
(18) Con. Geol., 1833, p. 38.
T. simplex.
(18) Con. Geol., 1833, p. 38, pl. i, f. 6.
T. tibialis.
(18) Con. Geol., 1833, p. 38
Tetraplodon pectinatum.
T. A. P. S., (27) vol. vi, 1838, p. 122; Obs. Gen. Unio, (29) vol. ii, p. 122.
TEXULARIA.
(18) Con. Geol., 1833, p. 219.
Thecodontosaurus antiquus.
P. A. N. S., (138) vol. x, 1858, p. 92.
TORNATELLA.
(18) Con. Geol, 1833, p. 110.
T. inflata.
(18) Con. Geol., 1833, p. 19.
TRIGONIA.
T. A. P. S., (36) vol. vii, 1840, pp. 251, 252; P. A. N. S., (145) vol. x, 1858, p. 221.
T. aliformis.
T. A. P. S., (36) vol. vii, 1840, p. 256.
T. alæformis.
T. A. P. S., (36) vol. vii, 1840, p. 253.
T. clavellata.
T. A. P. S., (36) vol. vii, 1840, p. 251.
T. dædalæa.
T. A. P. S., (36) vol. vii, 1840, p. 255.
T. Gibboniana.
P. A. P. S., (33) vol. i, 1840, p. 226; T. A. P. S., (36) vol. vii, 1840, pp. 255, 256, pl. ix, f. 7.
T. Hondaana.
P. A. P. S., (33) vol. i, 1840, p. 226; T. A. P. S., (36) vol. vii, 1840, p 256, pl. ix, f. 9.
T. scabra.
T. A. P. S., (36) vol. vii, 1840, p. 255.
T. spinosa.
T. A. P. S., (36) vol. vii, 1840, p. 255.

Succinea D
T. A. P.
G.
S. Fordi
J. A. S
107
S. fulgens
P. A
S. gracil
P. A

S. Gro
d.

S. Ha
J

S. H

S.

S

S

S

S

ypanostoma elongata.

J. A. N. S., (214) vol. v, 1862, p. 287; (243) vol. vi, 1866, p. 148; Obs. Gen. Unio, (215) vol. ix, p. 109; (244) vol. xi, p. 104.

Estabrookii.

J. A. N. S., (214) vol. v, 1862, pp. 273, 275, pl. xxxvi, f. 86; Obs. Gen. Unio, (215) vol. ix, pp. 77, 95, pl. xxxvi, f. 86.

flum.

J. A. N. S., (214) vol. v, 1862, p. 284; Obs. Gen. Unio, (215) vol. ix, p. 106.

Florencense.

J. A. N. S., (214) vol. v, 1862, pp. 287, 288, pl. xxxvi, f. 112; Obs. Gen. Unio, (215) vol. ix, pp. 109, 110, pl. xxxvi, f. 112; also Errata.

Hartmanii.

J. A. N. S., (214) vol. v, 1862, pp. 270, 276, pl. xxxvi, f. 80; (243) vol. vi, 1866, pp. 142, 146; Obs. Gen. Unio, (215) vol. ix, pp. 92, 98, pl. xxxvi, f. 80; (244) vol. xi, pp. 98, 102.

Henryanum.

J. A. N. S., (214) vol. v, 1862, p. 381, pl. xxxix, f. 222; Obs. Gen. Unio, (215) vol. ix, p. 173, pl. xxxix, f. 222.

incurvum.

J. A. N. S., (214) vol. v, 1862, p. 286, pl. xxxvi, f. 109; Obs. Gen. Unio, (215) vol. ix, p. 108, pl. xxxvi, f. 109.

infrafasciata.

J. A. N. S., (214) vol. v, 1862, pp. 291, 292; Obs. Gen. Unio, (215) vol. ix, pp. 113, 114.

Jayi.

J. A. N. S., (214) vol. v, 1862, p. 270, pl. xxxvi, f. 81; Obs. Gen. Unio, (215) vol. ix, p. 92, pl. xxxvi, f. 81.

Knoxense.

J. A. N. S., (214) vol. v, 1862, p. 281, pl. xxxvi, f. 101; Obs. Gen. Unio, (215) vol. ix, p. 103, pl. xxxvi, f. 101.

Knoxvillense.

J. A. N. S., (214) vol. v, 1862, p. 274, pl. xxxvi, f. 87; Obs. Gen. Unio, (215) vol. ix, p. 96, pl. xxxvi, f. 87.

lætitum.

J. A. N. S., (214) vol. v, 1862, pp. 272, 283, pl. xxxvi, f. 84; Obs. Gen. Unio, (215) vol. ix, pp. 94, 105, pl. xxxvi, f. 84.

lætissimum.

J. A. N. S., (214) vol. v, 1862, pp. 352, 353, pl. xxxix, f. 223; Obs. Gen. Unio, (215) vol. ix, pp. 174, 175, pl. xxxix, f. 223.

Leslyi.

J. A. N. S., (243) vol. vi, 1866, p. 146, pl. xxiii, f. 59; Obs. Gen. Unio, (244) vol. xi, p. 102, pl. xxiii, f. 59.

Lewisii.

J. A. N. S., (214) vol. v, 1862, p. 292, pl. xxxvi, f. 120; Obs. Gen. Unio, (215) vol. ix, p. 114, pl. xxxvi, f. 120.

lignum.

J. A. N. S., (214) vol. v, 1862, p. 288, pl. xxxvi, f. 114; Obs. Gen. Unio, (215) vol. ix, p. 110, pl. xxxvi, f. 114.

Trypanostoma luteum.

J. A. N. S., (214) vol. v, 1862, p. 350, pl. xxxix, f. 220; Obs. Gen. Unio, (215) vol. ix, p. 172, pl. xxxix, f. 220.

T. Lyonii.

J. A. N. S., (243) vol. vi, 1866, p. 144, pl. xxiii, f. 55; Obs. Gen. Unio, (244) vol. xi, p. 100, pl. xxiii, f. 55.

T. minor.

J. A. N. S., (214) vol. v, 1862, p. 278, pl. xxxvi, f. 95; (243) vol. vi, 1866, p. 143; Obs. Gen. Unio, (215) vol. ix, p. 100, pl. xxxvi, f. 95; (244) vol. xi, p. 99.

T. modestum.

J. A. N. S., (214) vol. v, 1862, p. 276, pl. xxxvi, f. 92; (243) vol. vi, 1866, p. 144; Obs. Gen. Unio, (215) vol. ix, p. 98, pl. xxxvi, f. 92; (244) vol. xi, p. 100.

T. moniliferum.

J. A. N. S., (214) vol. v, 1862, p. 295, pl. xxxvi, f. 125; (243) vol. vi, 1866, p. 145; Obs. Gen. Unio, (215) vol. ix, p. 117, pl. xxxvi, f. 125; (244) vol. xi, f. 101.

T. moriforme.

J. A. N. S., (214) vol. v, 1862, pp. 284, 289, 290, pl. xxxvi, f. 118; (243) vol. vi, 1866, p. 142; Obs. Gen. Unio, (215) vol. ix, pp. 106, 111, 112, pl. xxxvi, f. 118; (244) vol. xi, p. 98.

T. mucronatum.

J. A. N. S., (214) vol. v, 1862, p. 277, pl. xxxvi, f. 93; (243) vol. vi, 1866, p. 152; Obs. Gen. Unio, (215) vol. ix, p. 99, pl. xxxvi, f. 93; (244) vol. xi, p. 108.

T. napoideum.

J. A. N. S., (243) vol. vi, 1866, p. 143, pl. xxiii, f. 54; Obs. Gen. Unio, (244) vol. xi, p. 99, pl. xxiii, f. 54.

T. Niagarensis.

J. A. N. S., (214) vol. v, 1862, p. 276; Obs. Gen. Unio, (215) vol. ix, p. 98.

T. nuciforme.

J. A. N. S., (258) vol. vi, 1868, p. 337, pl. liv, f. 19; Obs. Gen. Unio, (259) vol. xii, p. 97, pl. liv, f. 19.

T. Ocoeénsis.

J. A. N. S., (214) vol. v, 1862, p. 290; Obs. Gen. Unio, (215) vol. ix, p. 112.

T. olivaceum.

J. A. N. S., (214) vol. v, 1862, p. 290, pl. xxxvi, f. 117; Obs. Gen. Unio, (215) vol. ix, p. 112, pl. xxxvi, f. 117.

T. Ordii.

J. A. N. S., (214) vol. v, 1862, p. 293; Obs. Gen. Unio, (215) vol. ix, p. 115.

T. pallidum.

J. A. N. S., (214) vol. v, 1862, p. 275, pl. xxxvi, f. 90; Obs. Gen. Unio, (215) vol. ix, p. 97, pl. xxxvi, f. 90.

T. parvum.

J. A. N. S., (214) vol. v, 1862, pp. 276, 280, pl. xxxvi, f. 91; (243) vol. vi, 1866, p. 142; Obs. Gen. Unio, (215) vol. ix, pp. 98, 102, pl. xxxvi, f. 91; (244) vol. xi, p. 98.

T. Postellii.

J. A. N. S., (214) vol. v, 1862, p. 286, pl. xxxvi, f. 110; Obs. Gen. Unio, (215) vol. ix, p. 108, pl. xxxvi, f. 110.

Trypanostoma pumilum.
J. A. N. S., (214) vol. v, 1862, p. 279, pl. xxxvi, f. 96; (243) vol. vi, 1866, p. 143; Obs. Gen. Unio, (215) vol. ix, p. 101, pl. xxxvi, f. 96; (244) vol. xi, p. 99.

T. Pybasii.
J. A. N. S., (214) vol. v, 1862, p. 289, pl. xxxvi, f. 115; Obs. Gen. Unio, (215) vol. ix, p. 111, pl. xxxvi, f. 115.

T. regularis.
J. A. N. S., (214) vol. v, 1862, p. 272; Obs. Gen. Unio, (215) vol. ix, p. 94.

T. Roanense.
J. A. N. S., (243) vol. vi, 1866, p. 142, pl. xxiii, f. 52; Obs. Gen. Unio, (244) vol. xi, p. 98, pl. xxiii, f. 52.

T. rostellatum.
J. A. N. S., (214) vol. v, 1862, p. 353, pl. xxxix, f. 225; Obs. Gen. Unio, (215) vol. ix, p. 175, pl. xxxix, f. 225.

T. Sayi.
J. A. N. S., (214) vol. v, 1862, p. 276; Obs. Gen. Unio, (215) vol. ix, p. 98.

T. Showalterii.
J. A. N. S., (214) vol. v, 1862, p. 293, pl. xxxvi, f. 122; Obs. Gen. Unio, (215) vol. ix, p. 115, pl. xxxvi, f. 122.

T. simplex.
J. A. N. S., (214) vol. v, 1862, pp. 277, 351, pl. xxxvi, f. 94; Obs. Gen. Unio, (215) vol. ix, pp. 99, 173, pl. xxxvi, f. 94.

T. Spillmanii.
J. A. N. S., (214) vol. v, 1862, pp. 271, 285, pl. xxxvi, f. 82; Obs. Gen. Unio, (215) vol. ix, pp. 93, 107, pl. xxxvi, f. 82.

T. striatum.
J. A. N. S., (214) vol. v, 1862, p. 294, pl. xxxvi. f. 124; Obs. Gen. Unio, (214) vol. v, 1862, p, 294, pl. xxxvi, f. 124.

T. strictum.
J. A. N. S., (214) vol. v, 1862, p. 352, pl. xxxix, f. 224; Obs. Gen. Unio, (215) vol. ix, p. 174. pl. xxxix, f. 224.

T. subrobustum.
J. A. N. S., (243) vol. vi, 1866, p. 141, pl. xxiii, f. 50; Obs. Gen. Unio, (244) vol. xi, p. 97, pl. xxiii, f. 50.

T. subulæforme.
J. A. N. S., (214) vol. v, 1862, p. 289, pl. xxxvi, f. 116; Obs. Gen. Unio, (215) vol. ix, p. 111, pl. xxxvi, f. 116.

T. subularis.
J. A. N. S., (214) vol. v, 1862, p. 276; Obs. Gen. Unio, (215) vol. ix, p. 98.

T. Sycamorense.
J. A. N. S., (214) vol. v, 1862, p. 283, pl. xxxvi, f. 104; Obs. Gen. Unio, (215) vol. ix, p. 105, pl. xxxvi, f. 104.

T. Tennesseénse.
J. A. N. S., (214) vol. v, 1862, p. 281, pl. xxxvi, f. 100; Obs. Gen. Unio, (215) vol. ix, p. 103, pl. xxxvi, f. 100.

T. Thorntonii.
J. A. N. S., (214) vol. v, 1862, pp. 284, 286, pl. xxxvi, f. 106; (243) vol. vi, 1866, p. 145; Obs. Gen. Unio, (215) vol. ix, pp. 100, 108, pl. xxxvi, f. 106; (244) vol. xi, p. 101.

Trypanostoma terebralis.
J. A. N. S., (258) vol. vi, 1868 22; Obs. Gen. Unio, (259) liv, f. 22.

T. uncialis.
J. A. N. S., (214) vol. v, 1862, Unio, (215) vol. ix, p. 174.

T. undulata.
J. A. N. S., (214) vol. v, 1862, vol. vi, 1866, p. 146; Obs. vol. ix, pp. 106, 117; (244)

T. univittatum.
J. A. N. S., (243) vol. vi, 1866 f. 58; Obs. Gen. Unio, (2 pl. xxiii, f. 58.

T. Vanuxemii.
J. A. N. S., (214) vol. v, 1862, pl. xxxvi, f. 98; Obs. Ge ix, pp. 102, 104, 173, pl. xx

T. tortum.
J. A. N. S., (214) vol. v, 1862, f. 89; Obs. Gen. Unio, (pl. xxxvi, f. 89.

T. trivittatum.
J. A. N. S., (214) vol. v. 1862, f. 102; Obs. Gen. Unio, (2 pl. xxxvi, f. 102.

T. trochulus.
J. A. N. S., (214) vol. v, 1862, f. 103; Obs. Gen. Unio, (2 pl. xxxvi, f. 103.

T. Troostii.
J. A. N. S., (214) vol. v, 1862, f. 107; Obs. Gen. Unio, (2 pl. xxxvi, f. 107.

T. Tuomeyi.
J. A. N. S., (214) vol. v, 1862, f. 111; Obs. Gen. Unio, (2 pl. xxxvi, f. 111.

T. venusta.
J. A. N. S., (243) vol. vi, 1866 xxiii, f. 66; Obs. Gen. Uni 105, 107, pl. xxiii, f. 66.

T. viride.
J. A. N. S., (214) vol. v, 1862, p 119; Obs. Gen. Unio, vo xxxvi, f. 119.

T. Wheatleyi.
J. A. N. S., (258) vol. vi, 1868, p Obs. Gen. Unio, (259) vol. f. 21.

T. Whitei.
J. A. N. S., (214) vol. v, 1862, xxxvi, f. 85; Obs. Gen. U pp. 95, 175, pl. xxxvi, f. 85.

TUBA.
(18) Con. Geol., 1833, p. 127.

T. alternata.
(18) Con. Geol., 1833, p. 127, pl.

T. striata.
(18) Con. Geol., 1833, p. 128.

T. sulcata.
(18) Con. Geol., 1833, p. 128, pl.

Turbinella pyruloides.
(18) Con. Geol., 1833, p. 176.

TURBINOLIA.
(18) Con. Geol., 1833, p. 197.

, 1833, pp. 194, 195, 197.

, 1833, pp. 194, 195, 197, pl. vi, f.

, 1833, pp. 193, 194, pl. vi, f. 206.

., 1833, p. 195, pl. vi, f. 209.

, 1833, pp. 194, 195, 197, pl. vi, f.

1833, pp. 194, 195, 197, pl. vi, f. 207.

., 1833, pp. 196, 197.

, 1833, pp 122, 126, 127.

., 1833, p. 122.

, 1833, p. 120.

., 1833, p. 126, pl. iv, f. 116.

., 1833, p. 125, pl. iv, f. 114.

, 1833, p. 125, pl. iv, f. 15.

., 1833, pp. 127, 128.

, 1833, p. 130; P. A. N. S., (145) , p. 221.

, 1833, p. 129, pl. iv, f. 120.

, 1833, pp. 130, 131, pl. iv, f. 121.

, 1833, p. 19.

, 1833, p. 130.

) vol. iii, 1827, pp. 260, 265; (12) 29, pp. 406–425, 442, 443; (15) vol. p. 68, 93; (27) vol. vi, 1836, p . 113, 115, 117, 118, 121, 142, 145; iii, 1841, p, 230; J. A. N. S, (133) 7, pp. 317, 318; (147) vol. iv, 1858, (168) vol. iv, 1859, p. 240; (221) 3, p. 421; Obs. Gen. Unio, (21) -7, 20–39, 56, 57, 78; (29) vol. ii, pp. 117, 118, 121, 142, 145; (43) vol. (150) vol. vi, pp. 37, 38, 44, 46; vii, p. 58; also Introduction; viii, Introduction; (222) vol. x,) vol. xi, Introduction; P. Z. S., 0) vol. xviii, 1850, p. 197; P. A. N. l. viii, 1856, p. 213; (118) vol. ix, , 18.

21) vol. ix, 1857, p. 84; J. A. N. l. iv, 1858, p. 51, pl. vi, f. 34; (221) 3, p. 445; Obs. Gen. Unio, (150) l, pl. vi, f. 34; (222) vol. x, p. 81.

7) vol. vi, 1838, pp. 134, 151; Obs. , (29) vol. ii, pp. 134, 151.

Unio abruptus.

T. A. P. S., (20) vol. v, 1833, p. 25; (27) vol. vi, 1838, p. 127; Obs. Gen. Unio, (21) vol. i, p. 137; (29) vol. ii, p. 127.

U. acuens.

J. A. N. S., (273) vol. viii, 1874, p. 27, pl. viii, f. 24; Obs. Gen. Unio, (275) vol. xiii, p, 35, pl. viii, f. 24.

U. acutirostris.

J. A. N. S., (257) vol. vi, 1868, p. 270, pl. xxxv, f. 84; Obs. Gen. Unio, (259) vol. xii, p. 30, pl. xxxv, f. 84.

U. acutissimus.

T. A. P. S., (15) vol. iv, 1830, p. 89, pl. x, f. 18; (27) vol. vi, 1838, pp. 122, 134, 145, 151; J. A. N. S., (133) vol. iii, 1857, p. 297; (148) vol. iv, 1858, p. 71; (159) vol. iv, 1859, p. 204; (221) vol. v, 1863, p. 411; (242) vol. vi, 1866, p. 46; Obs. Gen. Unio, (21) vol. i, p. 99, pl. x, f. 18; (29) vol. ii, pp. 122, 145; (150) vol. vi, pp. 17, 71; (170) vol. vii, p. 22; (222) vol. x, p. 47; (244) vol. xi, p. 50; P. A. N. S., (115) vol. viii, 1856, p. 214.

U. acutus.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. aduncus.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. æquatus.

P. A. N. S., (129) vol. ix, 1857, p. 170; J. A. N. S., (148) vol. iv, 1858, pp. 88, 89, pl. xix, f. 69; Obs. Gen. Unio, (150) vol. vi, pp. 88, 89, pl. xix, f. 69.

U. Æsopus.

T. A. P. S., (12) vol. iii, 1829, pp. 409, 411, 412, 413, 420; (15) vol. iv, 1830, p. 90; (27) vol. vi, 1836, p. 55; 1838, pp. 124, 145; (43) vol. viii, 1841, p. 231; (55) vol. x, 1845, p. 77; J. A. N., S., (221) vol. v, 1863, pp. 416, 417, 428, 432; Obs. Gen. Unio, (21) vol. i, pp. 23, 25, 26, 27, 34, 100; (27) vol. ii, pp. 55, 124, 145; (44) vol. iii, p. 69; (56) vol. iv, p. 77; (222) vol. x, pp. 52, 53, 64, 68.

U. Æthiops.

P. A. N. S., (176) vol. xii, 1860. p. 91; J. A. N. S., (220) vol. v, 1863, p. 377, pl. xli, f. 285; Obs. Gen. Unio, (222) vol. x, p. 13, pl. xli, f. 285.

U. aferulus.

J. A. N. S., (242) vol. vi, 1866, p. 34, pl. xiii, f. 34; Obs. Gen. Unio, (244) vol. xi, p. 38, pl. xiii, f. 34.

U. affinis.

P. A. P. S., (93) vol. v, 1852, p. 251; T. A. P. S., (79) vol. x, 1852, p. 271, pl. xix, f. 26; Obs. Gen. Unio, (83) vol. v, p. 27, pl. xix, f. 26; (170) vol. vii, p. 76; J. A. N. S., (168) vol. iv, 1859, p. 258.

U. Africanus.

P. A. N. S., (110) vol. viii, 1856, p. 94; J. A. N. S., (133) vol. iii, 1857, p. 300, pl. xxvii, f. 115; (242) vol. vi, 1866, p. 60; Obs. Gen. Unio, (150) vol. vi, p. 20, pl. xxvii, f. 15; (244) vol. xi, p. 64.

U. aheneus.

T. A. P. S., (54) vol. ix, 1843, p. 280, pl. xli, f. 9; Obs. Gen. Unio, (56) vol. iv, p. 280, pl. xli, f. 9.

Unio alasmodonta.
T. A. P. S., (12) vol. iii, 1829, p. 451; Obs. Gen. Unio, (21) vol. i, p. 65.

U. alatus.
P. A. P. S., (66) vol. v, 1851, p. 192; T. A. P. S., (12) vol. iii, 1829, pp. 407, 417, 424, 442, 448; (15) vol. iv; 1831, p. 106; (27) vol. vi, 1836, pp. 56, 74; 1838, pp. 118, 121, 146; (43) vol. viii, 1841, p. 231; J. A. N. S., (133) vol. iii, 1857, pp. 295, 314; (147) vol. iv, 1858, pp. 45, 48, pl. v, f. 25; (213) vol. v, 1862, p. 195; (221) vol. v, 1863, pp. 403, 425, 434, 436; Obs. Gen. Unio, (21) vol. i, pp. 21, 31, 38, 57, 62, 116; (29) vol. ii, pp. 56, 74, 118; (44) vol. iii, p. 69; (150) vol. vi, pp. 15, 34, 45, 48, pl. v, f. 25; (215) vol. ix, p. 17; (222) vol. x, pp. 39, 61, 70, 72; P. A. N. S., (135) vol. x, 1858, p. 13.

U. altilis.
T. A. P. S., (27) vol. vi, 1838, pp. 127, 146; Obs. Gen. Unio, (29) vol. ii, pp. 127, 146.

U. amabilis.
P. A. N. S., (235) vol. xvii, 1865, p. 89; J. A. N. S., (257) vol. vi, 1868, p. 257, pl. xxxi, f. 72; Obs. Gen. Unio, (259) vol. xii, p. 17, pl. xxxi, f. 72.

U. amaenus.
P. A. P. S., (35) vol. i, 1840, p. 286; T. A. P. S., (43) vol. viii, 1840, p. 200; Obs. Gen. Unio, (44) vol. iii, p. 38, pl. x, f. 12.

U. ambiguus.
T. A. P. S., (27) vol. vi, 1838, pp. 122, 148; Obs. Gen. Unio, (29) vol. ii, pp. 122, 148.

U. amnicus.
T. A. P. S., (27) vol. vi, 1838, p. 128; Obs. Gen. Unio, (29) vol. ii, p. 128.

U. amplus.
J. A. N. S., (273) vol. viii, 1874, p. 39, pl. xiii, f. 36; Obs. Gen. Unio, (275) vol. xiii, p. 43, pl. xiii, f. 36.

U. ampullaceus.
J. A. N. S., (257) vol. vi, 1868, p. 269, pl. xxxv, f. 83; Obs. Gen. Unio, (259) vol. xii, p. 29, pl. xxxv, f. 83.

U. amygdalum.
T. A. P. S., (54) vol. ix, 1843, pp. 275, 279, pl. xxxix, f. 1; (79) vol. x. 1852, p. 284; Obs. Gen. Unio, (56) vol. iv, pp. 275, 279, pl. xxxix, f. 1; (83) vol. v, p. 40; (205) vol. viii, p. 53; J. A. N. S., (189) vol. iv, 1860, p. 371.

U. anas.
T. A. P. S., (12) vol. iii, 1829, p. 424; Obs. Gen. Unio, (21) vol. i, p. 38.

U. anaticulus.
P. A. N. S., (192) vol. xiii, 1861, p. 40; J. A. N. S., (203) vol. v, 1861, p. 92, pl. xiii, f. 240; Obs. Gen. Unio, (205) vol. viii, p. 96, pl. xiii, f. 240.

U. Andersonensis.
J. A. N. S., (273) vol. viii, 1874, p. 36, pl. xii, f. 33; Obs. Gen. Unio, (275) vol. xiii, p. 40, pl. xii, f. 33.

U angulatus.
T. A. P. S., (27) vol. vi, 1838, pp. 121, 148; Obs. Gen. Unio, (29) vol. ii, pp. 121, 148.

Unio angusta.
T. A. P. S., (12) vol. iii, 1829, 1833, p. 91; (27) vol. vi, (43) vol. viii, 1840, p. 19 (21) vol. i, pp. 39, 203; 148; (44) vol. iii, p. 36.

U. angustatus.
T. A. P. S., (15) vol. iv, 1831, (27) vol. vi, 1838, pp. 131, 1858, pp. 68, 95; (189) v (221) vol. v, 1863, p. 405 (21) vol. i, p. 124, pl. xvii pp. 131, 146; (150) vol. (205) vol. viii, p. 17; (222 N. S., (148) vol. iv, 1858, vol. iv, 1860, p. 335; (2 405.

U. anodontina.
T. A. P. S., (12) vol. iii, 1829, 1833, p. 92; (27) vol. vi, Gen. Unio, (21) vol. i, pp ii, p. 132.

U. anodontoides.
T. A. P. S., (15) vol. iv, 1830, p 11; (27) vol. vi, 1838, pp. x, 1852, p. 274; J. A. N 1858, p. 46, pl. v, f. 2; (22 406, 407, 414; (242) vol. p. 51; Obs. Gen. Unio, (viii, ff. 11, 89; (29) vol. v vol. v, p. 30; (150) vol. v (222) vol. x, pp. 42, 43, 5 55; P. A. N. S., (135) vo

U. Anthonyi.
P. A. N. S., (192) vol. xiii, 1 S., (213) vol. v, 1862, p. 19 Obs. Gen. Unio, (215) vol f. 266.

U. antiquus.
T. A. P. S., (27) vol. vi, 1838, Gen. Unio, (29) vol. ii, pp

U. apicinus.
P. A. N. S., (119) vol. ix, 1857, (148) vol. iv, 1858, p. 76, p Gen. Unio, (150) vol. vi,

U. apiculatus.
J. A. N. S., (213) vol. v, 1862, vi, 1866, p. 34; T. A. P. S pp. 123, 146; Obs. Gen. U 123, 146; (215) vol. ix, p. 3 38.

U. appressus.
J. A. N. S., (273) vol. viii, 187 Obs. Gen. Unio, (275) v iii, f. 8.

U. apprimus.
J. A. N. S., (257) vol. vi, 1868, 78; Obs. Gen. Unio, (56) f. 13; (259) vol. xii, p. 23, A. P. S., (55) vol. x, 1845,

U. aquilus.
P. A. N. S., (129) vol. ix, 18 N. S., (148) vol. iv, 1858, Obs. Gen. Unio, (150) vol f. 72.

Unio arcatus.

T. A. P. S., (54) vol. ix, 1843, p. 282, pl. xlii, f. 12; J. A. N. S., (133) vol. iii, 1857, p. 313; (168) vol. iv, 1859, pp. 250, 253, 265; Obs. Gen. Unio, (56) vol. iv, p. 282, pl. xlii, f. 12; (150) vol. vi, p. 33; (170) vol. vii, pp. 68, 71, 83.

U. arceformis.

T. A. P. S., (15) vol. iv, 1831, p. 116, pl. xvii, f. 44; (20) vol. v, 1832, pp. 35, 86; (27) vol. vi, 1836, p. 50; 1838, pp. 124, 146; (242) vol. xi, 1866, p. 41; Obs. Gen. Unio, (21) vol. i, pp. 126, 147, 198, pl. xvii, f. 44; (29) vol. ii, pp. 56, 124, 146; (244) vol. xi, p. 45.

U. arctatus.

T. A. P. S., (27) vol. vi, 1838, pp. 133, 146; Obs. Gen. Unio, (29) vol. ii, pp. 133, 146.

U. arctior.

T. A. P. S., (27) vol. vi, 1834, p. 10, pl. iv, f. 10; 1838, pp. 133, 146; (79) vol. x, 1852, p. 273; J. A. N. S., (148) vol. iv, 1858, p. 54; Obs. Gen. Unio, (29) vol. ii, pp. 10, 133, 146, pl. iv, f. 10; (83) vol. vi, p. 29; (150) vol. vi, p. 54.

U. areus.

T. A. P. S., (27) vol. vi, 1838, pp 133, 146; Obs. Gen. Unio, (29) vol. ii, pp. 133, 146.

U. argenteus.

P. A. P. S., (40) vol. ii, 1841, p. 82; T. A. P. S., (43) vol. viii, 1841, p. 242, pl. xxv, f. 57; J. A. N. S., (148) vol. iv, 1858, p. 69; (189) vol. iv, 1860, p. 349; Obs. Gen. Unio, (44) vol. iii, p. 80, pl. xxv, f. 57; (150) vol. vi, p. 69; (205) vol. viii, p. 31.

U. argyratus.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii p. 144.

U. Arkansensis.

J. A. N. S., (213) vol. v, 1862, p. 206, pl. xxx, f. 275; Obs. Gen. Unio, (215) vol. ix, p. 28, pl. xxx, f. 275.

U. asper.

T. A. P. S., (15) vol. iv, 1830, p. 85, pl. ix, f. 15; (27) vol. vi, 1838, pp. 123, 146; J. A. N. S., (211) vol. v, 1863, p. 437; Obs. Gen. Unio, (29) vol. ii, pp. 123, 146; (222) vol. x, p. 73.

U. asperatus.

P. A. N. S., (192) vol. xiii, 1861, p. 41; J. A. N. S. (203) vol. v, 1861, p. 68, pl. vii, f. 218; Obs. Gen. Unio, (205) vol. viii, p. 72, pl. vii, f. 218.

U. asperulus.

J. A. N. S., (257) vol. vi, 1868, p. 280, pl. xxxviii, f. 94; Obs. Gen. Unio, (250) vol. xii, p. 40, pl. xxxviii, f. 94.

U. asperrimus.

T. A. P. S., (15) vol. iv, 1830, p. 71, pl. v, f. 3; (20) vol. v, 1832, p. 38; (27) vol. vi, 1836, p. 56; 1838, pp. 119, 123, 146; (43) vol. viii, 1841, p. 231; P. A. N. S., (135) vol. x, 1858, pp. 13, 14; J. A. N. S., (189) vol. iv, 1860, p. 372; Obs. Gen. Unio, (15) vol. i, pp. 81, 150, pl. v, f. 3; (29) vol. ii, pp. 56, 149, 123, 146; (44) vol. iii, p. 69; (205) viii, p. 54.

Unio ater.

T. A. P. S., (12) vol. iii, 1829, pp. 409, 412, 420, 426; pl. vii, f. 9; (20) vol. v, 1833, p. 87; (27) vol. vi, 1836, p. 49; 1838, pp. 128, 133; Obs. Gen. Unio, (21) vol. i. pp. 23, 26, 34, 40, 100, pl. vii, f. 9; (29) vol. ii, pp. 49, 128, 133.

Unio atratus.

T. A. P. S., (27) vol. vi, 1838, pp. 130, 148; J. A. N. S., (220) vol. v, 1863, p. 390; Obs. Gen. Unio, (29) vol. ii, pp. 130, 148; (222) vol. x, p. 26.

U. atrocostatus.

T. A. P. S., (55) vol. x, 1845, p. 70, pl. ii, f. 5; J. A. N. S., (148) vol. iv, 1858, p. 55; (221) vol. v, 1863, p. 437; Obs. Gen. Unio, (56) vol. iv, p. 70, pl. ii, f. 5; (150) vol. vi, p. 55; (222) vol. x, p. 73.

U. atromarginatus

P. A. P. S., (35) vol. i, 1840, p. 288; T. A. P. S., (43) vol. viii, 1840, p. 207, pl. xiii, f. 21; Obs. Gen. Unio, (44) vol. iii, p. 45, pl. xiii, f. 21.

U. antrosa.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. atroviolacea.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. attenuatus.

T. A. P. S., (27) vol. vi, 1838, p. 144; J. A. N. S., (273) vol. viii, 1874, p. 41, pl. xiv, f. 38; Obs. Gen. Unio, (29) vol. ii, p. 144; (275) vol. xiii, p. 45, pl. xiv, f. 38.

U. auratus.

T. A. P. S., (27) vol. vi, 1838, pp. 130, 140, 444; Obs. Gen. Unio, (29) vol. ii, pp. 130, 140, 144.

U. aureus.

P. A. N. S., (151) vol. xi, 1859, p. 112; J. A. N. S., (213) vol. v, 1862, p. 195, pl. xxvi, f. 264; (242) vol. vi, 1866, p. 27; Obs. Gen. Unio, (215) vol. ix, p. 17, pl. xxvi, f. 264; (244) vol. xi, p. 31.

U. auricularis.

T. A. P. S., (27) vol. vi, 1838, p. 134; Obs. Gen. Unio, (29) vol. ii, p. 134.

U. Australis.

T. A. P. S., (12) vol. iii, 1829, p. 425; (20) vol. v, 1833, p. 92; (27) vol. vi, 1838, pp. 127, 148; Obs. Gen. Unio, (21) vol. i, pp. 39, 204; (29) vol. ii, pp. 127, 148.

U. Averyi.

J. A. N. S., (168) vol. iv, 1859, p. 269, pl. xliv, f. 149; Obs. Gen. Unio, (170) vol. vii, p. 87; pl. xliv, f. 149.

U. Bairdianus.

P. A. N. S., (125) vol. ix, 1857, p. 102; J. A. N. S., (189) vol. iv, 1860, pp. 360, 361, pl. lxi, f. 186; Obs. Gen. Unio, (205) vol. viii, pp. 42, 43, pl. lxi, f. 186.

U. Baldwinensis.

P. A. N. S., (156) vol. xi, 1859, p. 170; J. A. N. S., (205) vol. viii, p. 12, pl. li, f. 155.

U. Barnesianus.

T. A. P. S., (27) vol. vi, 1836, p. 31, pl. x, f. 26; 1838, pp. 125, 146; (43) vol. viii, 1840, p. 194; J. A. N. S., (203) vol. v, 1861, pp, 82, 83; Obs. Gen. Unio, (29) vol. ii, pp. 31, 125, 146, pl. x, f. 26; (44) vol. iii, p. 32; (205) vol. viii, pp. 86, 87.

U. Barrattianus.

T. A. P. S., (79) vol. x, 1852, p. 278; Obs. Gen. Unio, (83) vol. v, p. 34.

Unio Barrattii.

T. A. P. S., (79) vol. x, 1852, p. 256, pl. xiii, f. 5; P. A. P. S., (93) vol. v, 1852, p. 251; J. A. N. S., (148) vol. iv, 1858, p. 58; (221) vol. v. 1863. p. 408; Obs. Gen. Unio, (83) vol. v, p. 12, pl. xiii, f. 5; (150) vol. vi, p. 58; (222) vol. x, p. 44.

U. basalis.

J. A. N. S., (273) vol. viii, 1874, p. 48, pl. xvi, f. 46; Obs. Gen. Unio, (275) vol. xiii, p. 32, pl. xvi, f. 46.

U. Batava.

T. A. P. S., (12) vol. iii, 1829, p. 424; (20) vol. v. 1833, pp. 88, 90; (27) vol. vi, 1838, pp. 128, 145; (54) vol. ix, 1843, p. 276; J. A. N. S., (133) vol. iii, 1857, p. 301; (242) vol. vi, 1866, pp. 53, 54, 57; Obs. Gen. Unio, (21) vol. i, pp. 38, 200, 202; (29) vol. ii, pp. 128, 145; (56) vol. iv, p. 276; (150) vol. vi, p. 21; (244) vol. xi, pp. 57, 58, 61.

U. Beadleianus.

P. A. N. S., (192) vol. xiii, 1861, p. 39; J. A. N. S., (203) vol. v, 1861, p. 94, pl. xiv, f. 242; Obs. Gen. Unio, (205) vol. viii, p. 98, pl. xiv, f. 242.

U. Bealei.

J. A. N. S., (213) vol. v, 1866, p. 204, pl. xxx, f. 273; Obs. Gen. Unio, (215) vol. ix, p. 26, pl. xxx, f. 273.

U. Beaverensis.

J. A. N. S., (257) vol. vi, 1868, p. 297, pl. xliv, f. 109; Obs. Gen. Unio, (259) vol. xii, p. 57, pl. xliv, f. 109.

U. bellulus.

J. A. N. S., (273) vol. viii, 1874, p. 50, pl. xvii, f. 48; Obs. Gen. Unio, (275) vol. xiii, p. 54, pl. xvii, f. 48.

U. Benedictii.

J. A. N. S., (242) vol. vi, 1866, p. 26; Obs. Gen. Unio, (244) vol. xi, p. 30.

U. Bengalensis.

T. A. P. S., (27) vol. vi, 1834, p. 3, pl. ii, f. 3, 1838, pp. 128, 145; P. Z. S. London, (60) vol. xviii, 1856, p. 198; J. A. N. S., (168) vol. iv, 1859, p. 240; Obs. Gen. Unio, (29) vol. ii, pp. 3, 128, 145, pl. ii, f. 3; (170) vol. vii, p. 58.

U. Berlandierii.

P. A. N. S., (125) vol. ix, 1857, p. 101; J. A. N. S., (189) vol. iv, 1860, pp. 361, 369, pl. lxv, f. 194; Obs. Gen. Unio, (205) vol. viii, pp. 43, 51, pl. lxv, f. 194.

U. bialata.

T. A. P. S., (27) vol. vi, 1838, p. 136; Obs. Gen. Unio, (29) vol. ii, p. 136.

U. biangularis.

P. A. P. S., (35) vol. i, 1840, p. 288.

U. biangulatus.

T. A. P. S., (43) vol. viii, 1840, p. 197, pl. ix, f. 8; Obs. Gen. Unio, (44) vol. iii, p. 35, pl. ix, f. 35.

U. bicolor.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. biemarginatus.

P. A. N. S., (120) vol. ix, 1851, p. 83; J. A. N. S., (189) vol. iv, 1860, p. 372; (203) vol. v, 1861, p. 63; (242) vol. vi, 1866, p. 47, pl. xvi, f. 45; Obs. Gen. Unio, (205) vol. viii, pp. 54, 67; (244) vol. xi, p. 51, pl. xvi, f. 45.

Unio brevialis.

T. A. P. S., (12) vol. iii, 1829, p. 422; Obs. Gen. Unio, (21) vol. i, p. 36.

U. Bigbyensis.

P. A. P. S., (39) vol. ii, 1841, p. 30; T. A. P. S., (43) vol. viii, 1841, p. 237, pl. xxii, f. 5; J. A. N. S., (148) vol. iv, 1858, p. 59; (221) vol. v, 1861, p. 86; Obs. Gen. Unio, (150) vol. iii, p. 75, pl. xxii, f. 51; (150) vol. vi, p. 59; (205) vol. viii, p. 90.

U. bilineatus.

T. A. P. S., (27) vol. vi, 1838, pp. 133, 145; Obs. Gen. Unio, (29) vol. ii, pp. 133, 145.

U. biloba.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. Binneyi.

T. A. P. S., (55) vol. x, 1845, p. 77, pl. vii, f. 18; Obs. Gen. Unio, (56) vol. iv, p. 77, pl. vii, f. 18.

U. Bisselianus.

J. A. N. S., (257) vol. vi, 1868, p. 277, pl. xxxvii, f. 90; Obs. Gen. Unio, (259) vol. xii, p. 37, pl. xxxvii, f. 90.

U. Blandianus.

P. A. N. S., (116) vol. viii, 1856, p. 263; (119) vol. ix, 1857, p. 31; J. A. N. S., (148) vol. iv, 1858, p. 65, pl. xi, f. 47; (189) vol. iv, 1860, p. 358; Obs. Gen. Unio, (150) vol. vi, p. 65, pl. xi, f. 47; (205) vol. viii, p. 40.

U. Blandingianus.

T. A. P. S., (20) vol. v, 1834, p. 101, pl. xv, f. 44; (27) vol. vi, 1838, pp. 130, 146; (54) vol. ix, 1843, p. 275; J. A. N. S., (221) vol. v, 1863, pp. 22, 435; (242) vol. vi, 1866, p. 22; Obs. Gen. Unio, (21) vol. i, p. 213; (29) vol. ii, pp. 130, 146; (56) vol. iv, p. 272; (222) vol. x, p. 71; (244) vol. xi, p. 26.

U. Boroughianus.

J. A. N. S., (213) vol. v, 1862, p. 190; Obs. Gen. Unio, (215) vol. ix, p. 12.

U. Bourguignatianus.

J. A. N. S., (242) vol. vi, 1866, pp. 51, 54; Obs. Gen. Unio, (244) vol. xi, pp. 55, 58, pl. xviii, f. 51.

U. Bournianus.

P. A. P. S., (35) vol. i, 1840, p. 288; T. A. P. S., (43) vol. viii, 1840, p. 213, pl. xv, f. 28; Obs. Gen. Unio, (44) vol. iii, p. 51, pl. xv, f. 28.

U. Boydianus.

P. A. P. S., (35) vol. i, 1840, p. 286; T. A. P. S., (43) vol. viii, 1840, p. 216, pl. xvi, f. 32; Obs. Gen. Unio, (44) vol. iii, p. 54, pl. xvi, f. 32.

U. Boykinianus.

P. A. P. S., (35) vol. i, 1840, p. 288; T. A. P. S., (43) vol. viii, 1840, p. 208, pl. xiii, f. 22; J. A. N. S., (221) vol. v, 1863, p. 402; Obs. Gen. Unio, (44) vol. iii, p. 46, pl. xiii, f. 22; (222) vol. x, p. 39.

U. Brazosensis.

J. A. N. S., (258) vol. vi, 1868, p. 209, pl. xlviii, f. 122; Obs. Gen. Unio, (259) vol. xii, p. 69, pl. xlviii, f. 122.

U. brevialis.

T. A. P. S., (20) vol. v, 1833, p. 88; (27) vol. vi, 1838, pp. 126, 130, 131; Obs. Gen. Unio, (21) vol. i, p. 200; (29) vol. ii, pp. 126, 130, 131.

Unio brevidens.

T. A. P. S., (15) vol. iv, 1830, p. 75, pl. vi, f. 6; (20) vol. v, 1833, p. 85; (27) vol. vi, 1836, p. 50; 1838, pp. 129, 146; (43) vol. viii, 1840, p. 205; J. A. N. S., (159) vol. iv, 1859, p. 219; Obs. Gen. Unio, (21) vol. i, pp. 85, 197, pl. vi, f. 6; (29) vol. ii, pp. 50, 129, 146; (44) vol. iii, p. 43; (170) vol. vii, p. 37.

U. brevis.

J. A. N. S., (273) vol. viii, 1874, p. 35, pl. xii, f. 32; Obs. Gen. Unio, (275) vol. xiii, p. 39, pl. xii, f. 32.

U. Brownianus.

T. A. P. S., (27) vol. vi, 1838, pp. 108, 121, 148, pl. xxiv, f. 116; Obs. Gen. Unio, (29) vol. ii, pp. 108, 121, 148, pl. xxiv, f. 116.

U. Brownii.

P. A. N. S., (110) vol. viii, 1856, p. 95; J. A. N. S., (133) vol. iii, 1857, p. 307, pl. xxix, f. 22; (168) vol. iv, 1859, p. 252; Obs. Gen. Unio, (150) vol. vi, p. 27, pl. xxix, f. 22; (170) vol. vii, p. 70.

U. Bruguierianus.

J. A. N. S., (242) vol. vi, 1866, p. 54; Obs. Gen. Unio, (244) vol. xi, p. 58.

U. Brumleyanus.

P. A. P. S., (40) vol. ii, 1841, p. 82.

U. Brumbyanus.

T. A. P. S., (43) vol. viii, 1841, p. 245, pl. xxvi, f. 62; J. A. N. S., (189) vol. iv, 1860, p. 344; (203) vol. v, 1861, pp. 89, 101; Obs. Gen. Unio, (44) vol. iii, p. 83, pl. xxvi, f. 62; (205) vol. viii, pp. 26, 93, 105.

U. Buckleyi.

T. A. P. S., (54) vol. ix, 1843, p. 276, pl. xxxix, f. 2; Obs. Gen. Unio, (56) vol. iv, p. 276, pl. xxxix, f. 2.

U. Buddianus.

T. A. P. S., (54) vol. ix, 1843, p. 277, pl. xl, f. 5; Obs. Gen. Unio, (56) vol. iv, p. 277, pl. xl, f. 5.

U. bulbosus.

P. A. N. S., (129) vol. ix, 1857, p. 172; J. A. N. S., (159) vol. iv, 1859, p. 191, pl. xxi, f. 75; Obs. Gen. Unio, (170) vol. vii, p. 9, pl. xxi, f. 75.

U. bullata.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. bullosus.

P. A. N. S., (158) vol. xi, 1859, p. 187; J. A. N. S., (168) vol. iv, 1859, p. 264, pl. xliii, f. 144; Obs. Gen. Unio, (170) vol. vii, p. 82, pl. xliii, f. 144.

U. Burkensis.

P. A. N. S., (151) vol. xi, 1859, p. 112; J. A. N. S., (159) vol. iv, 1859, p. 215, pl. xxvii, f. 95; (242) vol. vi, 1866, p. 13; Obs. Gen. Unio, (170) vol. vii, p. 33, pl. xxvii, f. 95; (244) vol xi, p. 17.

U. Burroughianus.

T. A. P. S., (20) vol. v, 1833, pp. 61, 67, pl. x, f. 27; (27) vol. vi, 1838, pp. 129, 148; J. A. N. S., (133) vol. iii, 1857, pp. 308, 309; (168) vol. iv, 1859, p. 272; (220) vol. v, 1863, p. 387; Obs. Gen. Unio, (21) vol. i, pp. 173, 179, pl. x, f. 27; (29) vol. ii, pp. 129, 148; (150) vol. vi, pp. 28, 29; (170) vol. vii, p. 90; (222) vol. x, p. 23.

Unio buxeus.

P. A. P. S., (93) vol. v, 1852, p. 251; T. A. P. S., (79) vol. x, 1852, p. 261, pl. xv, f. 13; J. A. N. S., (148) vol. iv, p. 80; Obs. Gen. Unio, (83) vol. v, p. 17; (150) vol. vi, p. 80.

U. cacao.

P. A. N. S., (154) vol. xi, 1859, p. 154; J. A. N. S., (189) vol. iv, 1860, p. 344, pl. lvi, f. 169; (203) vol. v, 1861, p. 90; Obs. Gen. Unio, (205) vol. viii, pp. 26, 94, pl. lvi, f. 169.

U. cæruleus.

T. A. P. S., (15) vol. iv, 1830, pp. 92, 95, pl. xiii, f. 25; (20) vol. v, 1832, p. 34; (27) vol. vi, 1838, pp. 128, 145; J. A. N. S., (133) vol. iii, 1857, pp. 294, 300, 303, 311; Obs. Gen. Unio, (21) vol. i, pp. 34, 102, 105, 146, pl. xiii, f. 25; (29) vol. ii, pp. 128, 145; (150) vol. vi, p. 20.

U. Caffer.

T. A. P. S., (133) vol. iii, 1857, pp. 301, 302; Obs. Gen. Unio, (150) vol. vi, pp. 21, 22.

U. Cahabensis.

J. A. N. S., (273) vol. viii, 1874, p. 17; Obs. Gen. Unio, (275) vol. xiii, p. 21, pl. v, f. 14.

U. Caillaudii.

T. A. P. S., (27) vol. vi, 1838, pp. 132, 148; (79) vol. x, 1852, p. 282; J. A. N. S., (133) vol. iii, 1857, p. 298; Obs. Gen. Unio, (29) vol. ii, pp. 132, 148; (83) vol. v, p. 38; (150) vol. vi, p. 18.

U. calceolus.

T. A. P. S., (9) vol. iii, 1827, p. 265, pl. iii, f. 1; (12) vol. iii, 1829, pp. 409, 411, 413, 439; (15) vol. iv, 1830, p. 67; (27) vol. vi, 1836, pp. 33, 43, 55, 56; Obs. Gen. Unio, (21) vol. i, pp. 7, 23, 25, 27, 53, 77, pl. iii, f. 1; (27) vol. vi, 1838, pp. 33, 43, 55, 56, 135.

U. Caldwellii.

P. A. N. S., (140) vol. x, 1858, p. 118; J. A. N. S., (168) vol. iv, 1859, p. 265, pl. xliii, f. 145; Obs. Gen. Unio, (170) vol. vii, p. 83, pl. xliii, f. 145.

U. calendis.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. caliginosus.

T. A. P. S., (55) 1845, p. 79, pl. vii, f. 21; Obs. Gen. Unio, (56) vol. iv, p. 79, pl. vii, f. 21.

U. callosus.

P. A. P. S., (39) vol. ii, 1841, p. 31; T. A. P. S., (43) vol. viii, 1841, p. 239, pl. xxiii, f. 54; J. A. N. S., (213) vol. v, 1862, p. 205; Obs. Gen. Unio, (44) vol. iii, p. 77, pl. xxiii, f. 54; (215) vol. ix, p. 27.

U. Cambodiensis.

P. A. N. S., (112) vol. viii, 1856, p. 103; J. A. N. S., (133) vol. iii, 1857, p. 313, pl. xxx, f. 28; (168) vol. iv, 1859, p. 249; Obs. Gen. Unio, (150) vol. vi, p. 33, pl. xxx, f. 28; (170) vol. vii, p. 67.

U. camelopardilis.

P. A. N. S., (177) vol. xii, 1860, p. 92; J. A. N. S., (189) vol. iv, 1860, pp. 353, 355, pl. lix, f. 180; Obs. Gen. Unio, (205) vol. viii, pp. 35, 37, pl. lix, f. 180.

Unio camelus.

T. A. P. S., (20) vol. v, 1834, p. 102, pl. xv, f. 45; (27) vol. vi, 1838, pp. 125, 146; (43) vol. viii, 1841, p. 231; Obs. Gen. Unio, (21) vol. i, p. 214, pl. xv, f. 45; (29) vol. ii, pp. 125, 146; (44) vol. iii, p. 69.

U. camptodon.

T. A. P. S., (27) vol. vi, 1838, pp. 129, 146; (55) vol. x, 1845, p. 74; J. A. N. S., (148) vol. iv, 1858, pp. 53, 76; (221) vol. v, 1863, p. 416; Obs. Gen. Unio, (29) vol. ii, pp. 129, 146; (56) vol. iv, p. 74; (150) vol. vi, pp. 53, 76; (222) vol. x, p. 52.

U. Canadensis.

P. A. N. S., (122) vol. ix, 1857, p. 85; J. A. N. S., (168) vol. iv, 1859, p. 268, pl. xliv, f. 148; Obs. Gen. Unio, (170) vol. vii, p. 86, pl. xliv, f. 148.

U. capax.

T. A. P. S., (27) vol. vi, 1838, p. 125, 126; (79) vol. x, 1852, p. 266; Obs. Gen. Unio, (29) vol. ii, pp. 125, 126; (83) vol. v, p. 22.

U. caperatus.

T. A. P. S., (55) vol. x, 1845, p. 75, pl. v, f. 14; (79) vol. x, 1852, p. 267; Obs. Gen. Unio, (56) vol. iv, p. 75, pl. v, f. 14; (83) vol. v, p. 23.

U. Capigliolo.

T. A. P. S., (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (29) vol. ii, p. 132.

U. capillaris.

T. A. P. S., (20) vol. v, 1832, p. 29, pl. ii, f. 2; (27) vol. vi, 1836, p. 50, 1838, p. 131; J. A. N. S., (221) vol. v, 1863, p. 442; Obs. Gen. Unio, (21) vol. i, p. 50, 141, pl. ii, f. 2; (29) vol. ii, p. 131; (222) vol. x, p. 78.

U. capillus.

T. A. P. S., (27) vol. vi, 1838, p. 129; J. A. N. S., (221) vol. v, 1863, p. 423; Obs. Gen. Unio, (29) vol. ii, p. 129; (222) vol. x, p. 59.

U. capsæformis.

T. A. P. S., (20) vol. v, 1832, p. 31, pl. ii, f. 4; (27) vol. v, 1836, pp. 51, 96; 1838, pp. 127, 146; J. A. N. S., (203) vol. v, 1861, pp. 63, 65; Obs. Gen. Unio, (21) vol. i, p. 143, pl. ii, f. 4; (29) vol. ii, pp. 51, 96, 127, 146; (205) vol. viii, pp. 67, 69.

U. carbonarius.

T. A. P. S., (27) vol. vi, 1836, p. 37, pl. xi, f. 32; 1838, pp. 125, 146; Obs. Gen. Unio, (29) vol. ii, pp. 37, 125, 146, pl. xi, f. 32.

U. cardium.

T. A. P. S., (27) vol. vi, 1838, pp. 125, 144; Obs. Gen. Unio, (29) vol. ii, pp. 125, 144.

U. carinatus.

T. A. P. S., (12) vol. iii, 1829, p. 417; (27) vol. vi, 1838, p. 127; Obs. Gen. Unio, (21) vol. i, p. 31; (29) vol. ii, p. 127.

U. carinifera.

T. A. P. S., (12) vol. iii, 1829, pp. 416, 422; (20) vol. v, 1833, p. 89; (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (21) vol. i, pp. 30, 36, 201; (29) vol. ii, p. 130.

Unio carious.

T. A. P. S., (12) vol. iii, 1829, pp. 409, 411, 414, 417, 418, 423, 424, 425, 426, 435; (15) vol. iv, 1830, pp. 75, 107; (20) vol. v, 1832, p. 34; 1833, pp. 74, 92; 1834, p. 101; (27) vol. vi, 1836, pp. 49, 53, 54, 55; 1838, pp. 128, 135, 146; (43) vol. viii, 1841, p. 236; (79) vol. x, 1852, pp. 268, 270, 271, 274; Obs. Gen. Unio, (21) vol. i, pp. 23, 24, 28, 31, 32, 37, 38, 39, 40, 49, 75, 107, 136, 213; (29) vol. ii, pp. 49, 50, 51, 53, 54, 55, 126, 135, 146; (44) vol. iii, pp. 39, 74; (83) vol. v, pp. 17, 26, 27, 30; (205) vol. viii, pp. 24, 74, 79, 103; (222) vol. x, p. 71; J. A. N. S., (189) vol. iv, 1860, p. 342; (203) vol. v, 1861, pp. 70, 75, 99; (221) vol. v, 1863, p. 435.

U. Carolinensis.

T. A. P. S., (27) vol. vi, 1834, p. 5; 1838, p. 123; Obs. Gen. Unio, (29) vol. ii, pp. 5, 123.

U. Carolinianus.

T. A. P. S., (12) vol. iii, 1829, p. 416; (27) vol. vi, 1838, p. 129; Obs. Gen. Unio, (21) vol. i, p. 30; (29) vol. ii, p. 129.

U. Carynthiacus.

T. A. P. S., (27) vol. vi, 1838, p. 128; J. A. N. S., (133) vol. iii, 1857, p. 301; Obs. Gen. Unio, (29) vol. ii, p. 128; (150) vol. vi, p. 21.

U. castaneus.

T. A. P. S., (15) vol. iv, 1830, p. 91, pl. xi, f. 21; (27) vol. vi, 1838, pp. 126, 144, 146; (55) vol. x, 1845, p. 82; J. A. N. S., (189) vol. iv, 1860, p. 344; (203) vol. v, 1861, pp. 58, 104; Obs. Gen. Unio, (21) vol. i, p. 101, pl. xi, f. 21; (29) vol. ii, pp. 126, 144, 146; (56) vol. iv, p. 82; (205) vol. viii, pp. 26, 62, 108; (244) vol. ix; Errata.

U. castanus.

J. A. N. S., (221) vol. v, 1863, p. 439; Obs. Gen. Unio, (222) vol. x, p. 75; (244) vol. xi; Errata.

U. castus.

P. A. N. S., (185) vol. xii, 1860, p. 306; J. A. N. S., (189) vol. iv, 1860, p. 349, pl. lvii, f. 174; Obs. Gen. Unio, (205) vol. viii, p. 81, pl. lvii, f. 174.

U. Catawbensis.

P. A. N. S., (127) vol. ix, 1857, p. 104; J. A. N. S., (203) vol. v, 1861, p. 54, pl. i, f. 200; Obs. Gen. Unio, (205) vol. viii, p. 58, pl. i, f. 200.

U. catillus.

T. A. P. S., (27) vol. vi, 1838, p. 131; Obs. Gen. Unio, (29) vol. ii, p. 131.

U. caudatus.

T. A. P. S., (27) vol. vi, 1838, p. 121; Obs. Gen. Unio, (29) vol. ii, p. 121.

U. Charlottensis.

J. A. N. S., (242) vol. vi, 1866, p. 8, pl. ii, f. 5; Obs. Gen. Unio, (244) vol. xi, p. 12, pl. ii, f. 5.

U. Charruanus.

T. A. P. S., (27) vol. vi, 1838, pp. 128, 148; Obs. Gen. Unio, (29) vol. ii, pp. 128, 148; (150) vol. vi, p. 30; J. A. N. S., (133) vol. iii, 1857, p. 310.

U. Chathamensis.

J. A. N. S., (242) vol. vi, 1866, p. 21, pl. vi, f. 19; Obs. Gen. Unio, (244) vol. xi, p. 25, pl. vi, f. 19.

A. N.
f. 90;
7, pl.

J. A. N.
vi, f. 250;
105, pl.

127, 148; Obs.
148.

p. 323, pl. lii, f.
vol. xii, p. 85, pl.

p. 144; Obs. Gen.

1861, p. 392; J. A. N.
100, pl. xxvii, f. 265;
vol. ix, p. 18, pl. xxvii,

1838, p. 124; Obs. Gen.
p. 124.

xiii, 1861, p. 39; J. A. N.
1861, p. 93, pl. xiii, f. 241;
p. 20; Obs. Gen. Unio,
97, pl. xiii, f. 241; (242) vol.

vol. i, 1840, p. 285; T. A. P. S.,
, 1840, p. 194, pl. viii, f. 4.

7) vol. vi, 1838, p. 144; Obs. Gen.
vol. ii, p. 144.

192) vol. xiii, 1861, p. 39; J. A. N.
vol. v, 1861, p. 100, pl. xvi, f. 248;
n. Unio, (205) vol. viii, p. 104, pl.
48.

(12) vol. iii, 1829; pp. 406, 409, 412, 422, 423, 433, pl. ix, f. 14; (15) vol. pp. 77, 80, 91; 1831, p. 106; (27) vol. pp. 119, 130, 146; (43) vol. viii, 1841, J. A. N. S., (168) vol. iv, 1859, p. 252; l. iv, 1860, p. 349; (203) vol. v, 1861, 4; (221) vol. v, 1863, p. 438; (242) 1866, p. 19, pl. vi, f. 17; Obs. Gen. 1) vol. i, pp. 20, 23, 26, 28, 34, 36, 37, 101, pl. ix, f. 14; (29) vol. ii, pp. 146; (44) vol. iii, p. 69; (170) vol. 0; (205) vol. viii, pp. 41, 74, 78, 98; l. x, p. 74; (244) vol. xi, p. 23, pl. vi,

(273) vol. viii, 1874, p. 15, pl. iv, f. Gen. Unio, (275) vol. xiii, p. 19, pl.

Unio cirratus.

J. A. N. S., (274) vol. viii, 1874, p. 55, pl. xix, f. 53; Obs. Gen. Unio, (275) vol. xiii, p. 59, pl. xix, f. 53.

U. clavus.

T. A. P. S., (12) vol. iii, 1829, p. 422; (20) vol. v, 1833, p, 89; (27) vol. vi, 1838, pp. 55, 126, 146; J. A. N. S., (159) vol. iv, 1859, p. 210; (189) vol. iv, 1860, p. 352; (221) vol. v, 1863, p. 441; (242) vol. vi, 1866, pp. 40, 43; Obs. Gen. Unio, (21) vol. i. pp. 36, 201; (29) vol. ii, pp. 55, 126, 146; (170) vol. vii, p. 28; (205) vol. viii, 34; (222) vol. x, p. 77; (244) vol. xi, pp. 44, 47.

U. Clifordiana.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. Clinchensis.

J. A N. S., (257) vol. vi, 1868, p. 278, pl. xxxvii, f. 91; Obs. Gen. Unio, (259) vol. xii, p. 38, pl. xxxvii, f. 91.

U. Claibornensis.

T.A.P.S., (27) vol. vi, 1838, pp. 105, 127, 146; J.A. N. S., (221) vol. v, 1863, p. 436; (274) vol. viii, 1874, p. 69, pl. xxi, f. 9; Obs. Gen. Unio, (29) vol. ii, pp. 105, 127, 146, pl. xxiv, f. 115; (222) vol. x, p. 72; (275) vol. xiii, p. 73, pl. xxi, f. 9.

U. Clarkianus.

P. A. P. S., (93) vol. v, 1852, p. 251; T. A. P. S., (79) vol. x, 1852, p. 273, pl. xxi, f. 30; Obs. Gen. Unio, (83) vol. v, p. 29, pl. xxi, f. 30.

U. clavatus.

T. A. P. S., (27) vol. vi, 1838, p. 119; Obs. Gen. Unio, (29) vol. ii, p. 119.

U. coaretatus.

T. A. P. S., (12) vol. iii, 1829, pp. 416, 422; (20) vol. v, 1833, p. 88; (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (21) vol. i, pp. 30, 36, 200; (29) vol. ii, p. 130.

U. coccineus.

T. A. P. S., (27) vol. vi, 1834, p. 12, pl. v, f. 12; (27) vol. vi, 1838, pp. 131, 146; J. A. N. S., (203) vol. v, 1861, pp. 82, 86; (221) vol. v, 1863, p. 423; Obs. Gen. Unio, (29) vol. ii, pp. 12, 131, 146, pl. v, f. 12; (205) vol. viii, pp. 86, 90; (222) vol. x, p. 59.

U. coelatus.

T. A. P. S., (27) vol. vi, 1838, pp, 122, 146; Obs. Gen. Unio, (29) vol. ii, pp, 122, 146.

U. cognatus.

P. A. N. S., (184) vol. xii, 1860, p. 306; J. A. N. S., (189) vol. iv, 1860, p. 368, pl. lxv, f. 193; Obs. Gen. Unio, (205) vol. viii, p. 50, pl. lxv, f. 193.

U. Coloradoensis.

P. A. N. S., (112) vol. viii, 1856, p. 103; J. A. N. S., (133) vol. iii, 1857, p. 314, pl. xxxi, f. 29; Obs. Gen. Unio, (150) vol. vi, p. 34, pl. xxxi, f. 29.

U. Columbensis.

P. A. N. S., (119) vol. ix, 1857, p. 31; J. A. N. S., (148) vol. iv, 1858, p. 75, pl. xiv, f. 55; Obs. Gen. Unio, (150) vol. vi, p. 75, pl. xiv, f. 55.

[illegible]) vol. vi, 1868, p. 310, pl. xlviii, [illegible] Gen. Unio, (259) vol. xii, p. 70, [illegible] 123.

[illegible] vol. vi, 1868, p. 314, pl. l, f. 127; [illegible]n. Unio, (259) vol. xii, p. 74, pl. l, f. [illegible]

[illegible] vol. xi, 1859, p. 112; J. A. N.S., [illegible] 1859, p. 217, pl. xxvii, f. 97; Obs. [illegible] (170) vol. vii, p. 35, pl. xxvii, f. [illegible]

[illegible] vol. vi, 1838, p. 122; Obs. Gen. [illegible] vol. ii, p. 122.

[illegible] vol. xii, 1860, p. 305; J. A. N. S., [illegible] vol. iv, 1860, p. 371, pl. xvi, f. 196; Obs. [illegible] Unio, (205) vol. viii, p. 53, pl. lxvi, f. [illegible]

[illegible] N. S., (192) vol. xiii, 1861, p. 39; J. A. N. S., [illegible] (242) vol. vi, 1866, p. 42; Obs. Gen. Unio, [illegible] (244) vol. xi, p. 46, pl. xv, f. 40.

[illegible] A. P. S., (12) vol. iii, 1829, pp. 417, 421; (20) vol. v, 1833, p. 87; (27) vol. vi, 1836, pp. 35, 37, 40, 56, 74, 122, 125, 146; (43) vol. viii, 1840, p. 218; (54) vol. ix, 1843, p. 280; J. A. N. S., (213) vol. v, 1862, pp. 190, 194, 202; (221) vol. v, 1863, p. 410; P. A. P. S., (66) vol. v, 1851, pp. 192, 193; P. A. N. S., (115) vol. viii, 1856, p. 213; Obs. Gen. Unio, (21) vol. i, pp. 31, 35, 199; (29) vol. ii. pp. 35, 37, 40, 56, 74, 122, 125, 146; (44) vol. iii, p. 56; (56) vol. iv, p. 280; (215) vol. ix, pp. 12, 14, 24; (222) vol. x, p. 46.

U. crassissimus.

T. A. P. S., (20) vol. v, 1833, p. 86; (27) vol. vi, 1838, pp. 134, 145; Obs. Gen. Unio, (29) vol. ii, pp. 134, 145, 151.

U. crassiusculus.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. crassus.

T. A. P. S., (12) vol. iii, 1829, pp. 417, 418, 421; (20) vol. v, 1832, pp. 25, 73, 74, 88; 1834, pp. 4, 6, 16, 24, 101; 1836, pp. 40, 56, 76; 1838, pp. 119, 127, 130, 144, 146; (43) vol. viii, 1841, pp. 231, 235; (55) vol. x, 1845, p. 80; (79) vol. x, 1852, p. 276; J. A. N. S., (148) vol. iv, 1858, p. 78; (242) vol. vi, 1866, p. 63; P. A. P. S., (66) vol. v, 1851, pp. 192, 193; P. A. N. S., (115) vol. viii, 1856, p. 213; Obs. Gen. Unio, (21) vol. i, pp. 31, 32, 35, 137, 213; (29) vol. ii, pp. 4, 6, 16, 24, 40, 56, 76, 119, 127, 130, 144, 146; (44) vol. iii, pp. 69, 73; (56) vol. iv, p. 80; (83) vol. v, p. 32; (150) vol. vi, p. 78; (244) vol. xi, p. 67.

U. crebririttatus.

P. A. N. S., (196) vol. xiii, 1861, p. 60; J. A. N. S., (203) vol. v, 1861, p. 68; (242) vol. 1866, p. 43, pl. xv, f. 41; Obs. Gen. U[illegible] (205) vol. viii, p. 72; (244) vol. xi, p. 4[illegible] xv, f. 41.

[illegible] vol. iii, 1829, p. 424; (15) vol. iv, [illegible], 90, 98; (20) vol. v, 1833, p. 65, 68; [illegible] 1838, pp. 121, 129 145; (43) vol. [illegible] 239; J. A. N. S., (133) vol. iii, [illegible], 294; (168) vol. iv, 1859, p. 266; [illegible], 1861, p. 77; (242) vol. vi, 1866, [illegible] Gen. Unio, (21) vol. i, pp. 38, [illegible] 177, 180; (29) vol. ii, pp. 121, 129, [illegible] iii, p. 77; (150) vol. vi, pp. 12, [illegible] vii, p. 84; (205) vol. viii, p. 81; [illegible], p. 61.

Unio creperus.

T. A. P. S., (27) vol. vi, 1836, p. 33, pl. x, f. 28; 1838, pp. 128, 146; Obs. Gen. Unio, (29) vol. ii, pp. 33, 128, 146, pl. x, f. 29.

U. crispatus.

J. A. N. S., (133) vol. iii, 1857, pp. 296, 297, 299, 303, 307; (168) vol. iv, 1859. p. 251; Obs. Gen. Unio, (150) vol. vi, pp. 16, 17, 19, 23, 27; (170) vol. vii, p. 69.

U. crocatus.

P. A. P. S., (39) vol. ii, 1841, p. 31; T. A. P. S., (43) vol. viii, 1841, p. 238, pl. xxii, f. 52; (79) vol. x, 1852, pp. 271, 274; J. A. N. S., (133) vol. iii, 1857, p. 314; (203) vol. v, 1861, p. 98; (221) vol. v, 1863, p. 438; Obs. Gen. Unio, (44) vol. iii, p. 76, pl. xxii, f. 52; (88) vol. v, pp. 27, 30; (150) vol. vi, p. 34; (205) vol. viii, p. 102; (222) vol. x, p. 74.

U. Cromwellii.

P. A. N. S., (235) vol. xvii, 1865, p. 89; J. A. N. S., (257) vol. vi, 1868, p. 258, pl. xxxi, f. 73; Obs. Gen. Unio, (259) vol. xii, p. 18, pl. xxxi, f. 73.

U. crudus.

J. A. N. S., (273) vol. viii, 1874, p. 14, pl. iv, f. 10; Obs. Gen. Unio, (275) vol. xiii, p. 18, pl. iv, f. 10.

U. cucumoides.

P. A. P. S., (35) vol. i, 1840, p. 285; T. A. P. S., (43) vol. viii, 1840, pp. 192, 219, pl. vii, f. 2; (54) vol. ix, 1843, p. 277; Obs. Gen. Unio, (44) vol. iii, pp. 30, 57, pl. vii, f. 2; (56) vol. iv, p. 277.

U. Cumberlandianus.

T. A. P. S., (27) vol. vi, 1836, p. 25, 26, pl. vii, f. 19; 1838, pp. 128, 146; Obs. Gen. Unio, (29) vol. ii, pp. 25, 26, 128, 146, pl. vii, f. 19; (170) vol. vii, p. 21; (205) vol. viii, pp. 22, 28; J. A. N. S., (159) vol. iv, 1859, p. 203; (189) vol. iv, 1860, pp. 340, 346.

U. Cumingii.

J. A. N. S., (168) vol. iv, 1859, p. 240, pl. xxxv, f. 120; Obs. Gen. Unio, (170) vol. vii, p. 58, pl. xxxv, f. 120.

U. cuneatus.

T. A. P. S., (12) vol. iii, 1829, pp. 410, 411, 419; (15) vol. iv, 1830, p. 77; (20) vol. v, 1832, pp. 31, 87; (27) vol. vi, 1836, pp. 35, 40; 1838, pp. 124, 125, 133, 144; (43) vol. viii, 1841, p. 231; Obs. Gen. Unio, (21) vol. i, pp. 24, 25, 33, 87, 143, 199; (29) vol. ii, pp. 35, 40, 124, 125, 133, 144; (44) vol. iii, p. 69.

U. cuneolus.

P. A. P. S., (35) vol. i, 1840, p. 286; T. A. P. S., (43) vol. viii, 1840, p. 193, pl. vii, f. 3; Obs. Gen. Unio, (44) vol. iii, p. 31, pl. vii, f. 3.

U. cuprea.

T. A. P. S., (27) vol. vi, 1834, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. cuprimus.

T. A. P. S., (15) vol. iv, 1830, p. 94, pl. xii, f. 24; (20) vol. v, 1834, p. 106; (27) vol. vi, 1838, pp. 133, 146; (79) vol. x, 1852, p. 284; J. A. N. S., (243) vol. vi, 1866, p. 121; Obs. Gen. Unio, (21) vol. i, pp. 204, 218; (29) vol. ii, pp. 133, 146; (83) vol. v, p. 40; (244) vol. xi, p. 78.

Unio curatus.

J. A. N. S., (242) vol. vi, 1866, p. 23, pl. vii, f. 21; Obs. Gen. Unio, (244) vol. xi, p. 37, pl. vii, f. 21.

U. curtus.

P. A. N. S., (151) vol. xi, 1859, p. 112; J. A. N. S., (203) vol. v, 1861, pp. 92, 103, pl. xvii, f. 253; Obs. Gen. Unio, (205) vol. viii, pp. 96, 107, pl. xvii, f. 253.

U. curvatus.

J. A. N. S., (273) vol. viii, 1874, p. 38, pl. xiii, f. 35; Obs. Gen. Unio, (275) vol. xiii, p. 42, pl. xiii, f. 35.

U. cuspidatus.

J. A. N. S., (273) vol. viii, 1874, p. 43, pl. xiv, f. 40; Obs. Gen. Unio, (275) vol. xiii, p. 47, pl. xiv, f. 40.

U. Cuvierianus.

P. A. P. S., (93) vol. v, 1852, p. 251; T. A. P. S., (79) vol. x, 1852, p. 263, pl. xvi, f. 16; J. A. N. S., (148) vol. iv, 1858, p. 81; Obs. Gen. Unio, (83) vol. v, p. 19, pl. xvi, f. 16; (150) vol. vi, p. 81.

U. cyclips.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. cylindrellus.

J. A. N. S., (258) vol. vi, 1868, p. 308, pl. xlviii, f. 121; Obs. Gen. Unio, (259) vol. xii, p. 68, pl. xlviii, f. 121.

U. cylindricus.

T. A. P. S., (12) vol. iii, 1829, pp. 407, 409, 410, 412, 413, 414, 417, 423; (15) vol. iv, 1831, p. 106; (20) vol. v, 1833, pp. 60, 89; (27) vol. vi, 1836, p. 55; 1838, pp. 124, 146; (43) vol. viii, 1841, pp. 230, 231; J. A. N. S., (133) vol. iii, 1857, p. 316; (148) vol. iv, 1858, p. 51; (221) vol. v, 1863, p. 421; Obs. Gen. Unio, (21) vol. i, pp. 21, 23, 24, 26, 27, 28, 31, 37, 116, 172, 201; (29) vol. ii, pp. 55, 124, 146; (44) vol. iii, pp. 68, 69; (150) vol. vi, pp. 36, 51; (222) vol. x, p. 57.

U. cyphia.

T. A. P. S., (27) vol. vi, 1834, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. cyrenoides.

J. A. N. S., (168) vol. iv, 1859, p. 269; Obs. Gen. Unio, (170) vol. vii, p. 87.

U. dactylus.

P. A. P. S., (35) vol. i, 1840, p. 287; T. A. P. S., (43) vol. viii, 1840, p. 196, pl. ix, f. 7; Obs. Gen. Unio, (44) vol. iii, p. 34, pl. ix, f. 7.

U. Damascensis.

J. A. N. S., (242) vol. vi, 1866, p. 55, pl. xviii, f. 32; Obs. Gen. Unio, (244) vol. xi, p. 59, pl. xviii, f. 52.

U. Dariensis.

T. A. P. S., (43) vol. viii, 1842, p. 246, pl. xxvi, f. 61; J. A. N. S., (148) vol. iv, 1858, p. 82; (221) vol. v, 1863, p. 404; Obs. Gen. Unio, (44) vol. iii, p. 84, pl. xxvi, f. 61; (150) vol. vi, p. 62; (222) vol. x, p. 40.

U. datus.

J. A. N. S., (257) vol. vi, 1868, p. 299, pl. xliv, f. 111; Obs. Gen. Unio, (259) vol. xii, p. 58, pl. xliv, f. 111.

5) vol. iv, 1830, p. 92, pl. xii, f. 23; vi, 1838, pp. 126, 141, 146; (79) vol. . 279, 284; J. A. N. S., (159) vol. p. 210; (203) vol. v, 1861, pp. 68, 85, (221) vol. v, 1863, p. 405; (242) vol. p. 43; Obs. Gen. Unio, (15) vol. iv, 2, pl. xii, f. 23; (27) vol. ii, pp. 126, .(83) vol. v, pp. 35, 40; (170) vol. ; (205) vol. viii, pp. 72, 89, 96, 108; . x, p. 41; (244) vol. xi, p. 47.

27) vol. vi, 1838, pp. 129, 130, 146; x, 1845, p. 74; J. A. N. S., (148) vol. p. 76; (221) vol. v, 1863, p. 437; . Unio, (29) vol. ii, pp. 129, 130, vol. iv, p. 74; (150) vol. vi, p. 76; . x, p. 73.

(79) vol. x, 1852, p. 257, pl. xiii, A. P. S., (93) vol. v, 1852, p. 251; . Unio, (83) vol. v, p. 13, pl. xiii,

27) vol. vi, 1834, p. 144; Obs. Gen. 9) vol. ii, p. 144.

192) vol. xiii, 1861, p. 40; J. A. N. vol. v, 1861, p. 87, pl. xii, f. 236; . Unio, (205) vol. viii, p. 91, pl. xii,

(27) vol. vi, 1838, p. 128; Obs. Gen. 9) vol. ii, p. 128.

27) vol. vi, 1838, pp. 131, 146; (43) , 1841, p. 231; P. A. N. S., (115) , 1856, p. 213; J. A. N. S., (221) 1863, p. 440; Obs. Gen. Unio, (29) p. 131, 146; (44) vol. iii, p. 69; (222) . 76.

(12) vol. iii, 1829, p. 424; (20) vol. v. 90; (27) vol. vi, 1838, pp. 128, 133, 9) vol. viii, 1840, pp. 200, 218, pl. 35; (54) vol. ix, 1843, p. 281; (79) 1852, p. 268; J. A. N. S., (133) 1857, pp. 291, 309; (159) vol. iv, 197; (220) vol. v, 1863, pp. 388, 389; l. vi, 1866, pp. 35, 58, pl. xix, f. A. P. S., (35) vol. i, 1840, p. 285; en. Unio, (21) vol. i, pp. 38, 202; . ii, pp. 128, 133, 148; (44) vol. iii, 56, pl. xvii, f. 35; (56) vol. iv, p. 9) vol. v, p. 24; (150) vol. vi, pp. 170) vol. vii, p. 15; (222) vol. x, 25; (244) vol. xi, p. 39, 62; pl. xix,

s.

, (152) vol. xi, 1859, p. 152; J. A. N. 9) vol. iv, 1859, p. 253, pl. xxxix, Obs. Gen. Unio, (170) vol. vii, p. xxxix, f. 133.

Unio denigratus.

P. A. N. S., (129) vol. ix, 1857, p. 171; J. A. N. S., (159) vol. iv, 1859, pp. 199, 200, pl. xxiii, f. 83; (189) vol. iv, 1860, p. 331; Obs. Gen. Unio (170) vol. vii, p. 17, pl. xxiii, f. 83; (205) vol. viii, p. 13.

U. depressa.

T. A. P. S., (12) vol. iii, 1829, pp. 409, 424, 438; (20) vol. v, 1833, p. 91; (27) vol. vi, 1838, pp. 124, 135, 148; Obs. Gen. Unio, (21) vol. i, pp. 23, 38, 52, 203; (29) vol. ii, pp. 124, 135, 148.

U. Deshayesii.

T. A. P. S., (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (29) vol. ii, p. 132.

U. diaphanus.

T. A. P. S., (27) vol. vi, 1834, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. differtus.

J. A. N. S., (273) vol. viii, 1874, p. 42, pl. xiv, f. 39; Obs. Gen. Unio, (275) vol. xiii, p. 46, pl. xiv, f. 39.

U. difficilis.

J. A. N. S., (258) vol. vi, 1868, p. 311, pl. xliv, f. 124; Obs. Gen. Unio, (259) vol. xii, p. 71, pl. xlix, f. 124.

U. dignatus.

J. A. N. S., (242) vol. vi, 1866, p. 51, pl. xvii, f. 48; Obs. Gen. Unio, (244) vol. xi, pp. 55, 59, pl. xvii, f. 48.

U. dilatatus.

T. A. P. S., (27) vol. vi, 1838, p. 133; Obs. Gen. Unio, (29) vol. ii, p. 133.

U. diminutus.

P. A. N. S., (152) vol. xi, 1859, p. 151; J. A. N. S., (168) vol. iv, 1859, p. 254, pl. xxxix, f. 134; Obs. Gen. Unio, (170) vol. vii, p. 72, pl. xxxix, f. 134.

U. diploderma.

T. A. P. S., (27) vol. vi, 1834, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. diplodon.

J. A. N. S., (168) vol. iv, 1859, p. 265; Obs. Gen. Unio, (170) vol. vii, p. 83.

U. discrepans.

P. A. N. S., (177) vol. xii, 1860, p. 92; J. A. N. S., (189) vol. iv, 1860, p. 340, pl. lv, f. 165; Obs. Gen. Unio, (205) vol. viii, p. 22, pl. lv, f. 165.

U. disculus.

P. A. N. S., (176) vol. xii, 1860, p. 91; J. A. N. S., (220) vol. v, 1863, p. 385, pl. xl, f. 293; Obs. Gen. Unio, (222) vol. x, p. 21, pl. xliv, f. 293.

U. discus.

T. A. P. S., (27) vol. vi, 1836, p. 74, pl. xviii, f. 57, 1838, pp. 129, 148; Obs. Gen. Unio, (29) vol. ii, pp. 74, 129, 148, pl. xviii, f. 57.

U. dispansus.

J. A. N. S., (273) vol. viii, 1874, p. 19, pl. vi, f. 16; Obs. Gen. Unio, (275) vol. xiii, p. 23, pl. vi, f. 16.

U. dispar.

P. A. N. S., (183) vol. xii, 1860, p. 305; J. A. N. S., (189) vol. iv, 1860, p. 327, pl. li, f. 153; Obs. Gen. Unio, (205) vol. viii, p. 9, pl. li, f. 153.

Unio dissimilis.

J. A. N. S., (273) vol. viii, 1874, p. 53, pl. xviii, f. 52; Obs. Gen. Unio, (275) vol. xiii, p. 57, pl. xviii, f. 52.

U. divaricatus.

T. A. P. S., (20) vol. v, 1833, p. 64, pl. ix, f. 24; (27) vol. vi, 1838, p. 129; Obs. Gen. Unio, (21) vol. i, p. 166, pl. ix, f. 24; (29) vol. ii, p. 129.

U. dolabelloides.

P. A. P. S., (35) vol. i, 1840, p. 288; T. A. P. S., (43) vol. viii, 1840, p. 215, pl. xv, f. 31; J. A. N. S., (242) vol. vi, 1866, pp. 38, 39; Obs. Gen. Unio, (44) vol. iii, p. 53, pl. xv, f. 31; (244) vol. xi, pp. 42, 43.

U. dolabræformis.

T. A. P. S., (27) vol. vi, 1838, pp. 103, 126, 146, pl. xxiv, f. 113; J. A. N. S., (221) vol. v, 1863, p. 413; Obs. Gen. Unio, (29) vol. ii, pp. 103, 136, 146; (222) vol. x, p. 49.

U. doliaris.

P. A. N. S., (235) vol. xvii, 1865, p. 88; J. A. N. S., (257) vol. vi, 1868, p. 260, pl. xxxii, f. 75; Obs. Gen Unio, (259) vol. xii, p. 20, pl. xxxii, f. 75.

U. dolosus.

P. A. N. S., (186) vol. xii, 1860, p. 307; J. A. N. S., (203) vol. v, 1861, p. 75, pl. ix, f. 224; Obs. Gen. Unio, (205) vol. viii, p. 79, pl. ix, f. 224.

U. Dombeyanus.

T. A. P. S., (12) vol. iii, 1829, pp. 417, 421; (27) vol. vi, 1838, p. 122; Obs. Gen. Unio, (21) vol. i, pp. 31, 35; (29) vol. ii, p. 122.

U. donaciformis.

T. A. P. S., (9) vol. iii, 1827, pp. 266, 267, pl. iv, f. 3; (12) vol. iii, 1829, pp. 409, 412, 420, 441; (15) vol. iv, 1830, p. 83; (27) vol. vi, 1838, pp. 124, 146; Obs. Gen. Unio, (21) vol. i, pp. 8, 9, 23, 26, 34, 35, 93, pl. iv, f. 3.

U. Dooleyensis.

J. A. N. S., (274) vol. viii, 1874, p. 64, pl. xxii, f. 60; Obs. Gen. Unio, (275) vol. xiii., p. 68, pl. xxii, f. 60.

U. Dorfeuillianus.

T. A. P. S., (27) vol. vi, 1836, p. 73, pl. xvii, f. 54; 1838, pp. 123, 146; Obs. Gen. Unio, (29) vol. ii, pp. 73, 123, 146, pl. xvii, f. 54.

U. dorsatus.

J. A. N. S., (257) vol. vi, 1868, p. 300, pl. xlv, f. 112.

U. Douglasiæ.

T. A. P. S., (27) vol. vi, 1838, p. 122; Obs. Gen. Unio, (29) vol. ii, p. 122.

U. Downei.

P. A. N. S., (143) vol. x, 1858, p. 166; J. A. N. S., (159) vol. iv, 1859, pp. 209, 216, 217; Obs. Gen. Unio, (170) vol. vii, pp. 27, 28, 35, pl. xxv, f. 91.

U. dromas.

T. A. P. S., (20) vol. v, 1833, p. 70, pl. x, f. 29; (27) vol. vi, 1838, pp. 124, 146; (55) vol. x, 1845, p. 75; (79) vol. x, 1852, p. 267; J. A. N. S., (148) vol. iv, 1858, p. 55; Obs. Gen. Unio, (21) vol. i, p. 182, pl. x, f. 29; (29) vol. ii, pp. 124, 146; (56) vol. iv, p. 75; (83) vol. v, p. 23; (150) vol. vi, p. 55.

Unio Dunkerianus.

P. A. N. S., (110) vol. viii, 1856, p. 94; J. A. N. S., (133) vol. iii, 1857, p. 305, pl. xxviii, f. 29; (168) vol. iv, 1859, p. 243; Obs Gen Unio, (150) vol. vi, p. 25, pl. xxviii, f. 29; (170) vol. vii, p. 61.

U. Duttonianus.

P. A. P. S., (39) vol. ii, 1841, p. 31; T. A. P. S., (43) vol. viii, 1841, p. 236, pl. xxii, f. 50; J. A. N. S., (189) vol. iv, 1860, p. 235; Obs. Gen. Unio, (44) vol. iii, p. 74, pl. xxii, f. 50; (205) vol. viii, p. 17.

U. Dysonii.

P. A. N. S., (152) vol. xi, 1859, p. 152; J. A. N. S., (168) vol. iv, 1859, p. 252, pl. xxxix, f. 132; Obs. Gen. Unio, (170) vol. vii, p. 78, pl. xxxix, f. 132.

U. ebenus.

T. A. P. S., (15) vol. iv, 1830, p. 84, pl. ix, f. 14; 1831, p. 118; (27) vol. vi, 1838, pp. 131, 146; (43) vol. viii, 1840, p. 219, 231; (79) vol. x, 1852, p. 284; J. A. N. S., (203) vol. v, 1861, pp. 74, 91; (221) vol. v, 1863, p. 424; P. A. N. S., (115) vol. viii, 1856, p. 213; Obs. Gen. Unio, (21) vol. i, p. 94, pl. ix, f. 14; (29) vol. ii, pp. 131, 146; (44) vol. iii, pp. 48, 69; (83) vol. v, p. 40; (205) vol. viii, pp. 78, 95; (222) vol. x, p. 60.

U. Novi-Eboraci.

T. A. P. S., (27) vol. vi, 1838, p. 104, pl. [illegible] 114; Obs. Gen. Unio, (29) vol. ii, p. [illegible] xxiv, f. 114.

U. Edgarianus.

P. A. P. S., (35) vol. i, 1840, p. 288; T. A. [illegible] (43) vol. viii, 1840, p. 214, pl. xv, f. 30; vol. x, 1845, p. 71; J. A. N. S., (242) vol. [illegible] 1866, p. 39; Obs. Gen. Unio, (44) vol. [illegible] 52, pl. xv, f. 30; (56) vol. iv, p. 71; (244) xi, p. 43.

U. effulgens.

P. A. N. S., (110) vol. viii, 1856, p. 94; J. A. [illegible] (133) vol. iii, 1857, p. 303, pl. xxviii, f. [illegible] Obs. Gen. Unio, (150) vol. vi, p. 23, pl. xx [illegible] f. 18.

U. Egyptiacus.

T. A. P. S., (27) vol. vi, 1838, pp. 129, 145; [illegible] Gen. Unio, (29) vol. ii, pp. 129, 145.

U. Eightsii.

P. A. N. S., (185) vol. xii, 1860, p. 306; J. A. [illegible] S., (189) vol. iv, 1860, p. 367, pl. lxvi, f. [illegible] Obs. Gen. Unio, (205) vol. viii, p. 49, pl. [illegible] f. 192.

U. elegans.

T. A. P. S., (15) vol. iv, 1830, p. 83, pl. ix, [illegible] (27) vol. vi, 1838, pp. 124, 146; (43) vol. [illegible] 1841, p. 231; J. A. N. S., (242) vol. vi, [illegible] p. 33; P. A. N. S., (115) vol. viii, 1856, p. [illegible] (135) vol. x, 1858, pp. 13, 14; Obs. Gen. [illegible] (21) vol. i, p. 93, pl. ix, f. 13; (29) vol. ii, [illegible] 124, 146; (44) vol. iii, p. 69; (244) vol. [illegible] 37.

U. Elliottii.

P. A. N. S., (116) vol. viii, 1856, p. 262; J. A. N. S., (148) vol. iv, 1858, p. 54, pl. vii, f. 37; Obs. Gen. Unio, (150) vol. vi, p. 54, pl. vii, f. [illegible]

(27) vol. vi, 1838, pp. 124, 144; Obs. nio, (29) vol. ii, pp. 124, 144.

(55) vol. x, 1845, p. 80; Obs. Gen. 56) vol. iv, p. 80.

(9) vol. iii, 1827, p. 268, pl. iv, f. 4; l. iii, 1829, pp. 408, 409, 412, 413, 414, (15) vol. iv, 1830, pp. 91; (20) vol. p. 30; (27) vol. vi, 1836, p. 55, 1838, 146; (43) vol. viii, 1841, p. 231; J. A. 213) vol. v, 1862, p. 189; (221) vol. v, 432; Obs. Gen. Unio, (21) vol. i, pp. 3, 26, 27, 28, 34, 45, 101, 142, pl. iv, f. 4; l. ii, pp. 55, 126, 146; (44) vol. iii, p. 5) vol. ix, p. 11; (222) vol. x, p. 68.

(12) vol. iii, 1829, p. 417; (27) vol. 4, p. 144; 1838, p. 127; J. A. N. S., ol. iii, 1857, p. 304; (168) vol. iv, 1859, Obs. Gen. Unio, (21) vol. i, p. 31; l. ii, pp 144, 127; (150) vol. vi, p. 24; ol. vii, p. 63.

(12) vol. iii, 1829, p. 421; (20) vol. v, p. 87, 88; (27) vol. vi, 1838, pp. 132, 145; J. A. N. S., (159) vol. iv, 1859; Obs. Gen. Unio, (21) vol. i, pp. 35,); (29) vol. ii, pp. 132, 134, 136, 145; ol. vii, p. 42.

(27) vol. vi, 1838, p. 132; Obs. Gen. (29) vol. ii, p. 132.

(20) vol. v, 1833, p. 62, pl. ix, f. 22; l. vi, 1836, p. 33; (29) vol. ii, pp. 134, A. N. S., (123) vol. ix, 1857, p. 86; J. ., (203) vol. v, 1861, p. 56, pl. ii, f. 203; ol. v, 1863, p. 445; Obs. Gen. Unio, l. i, p. 174, pl. ix, f. 22; (29) vol. ii, 134, 148; (205) vol. viii, p. 60, pl. ii, (222) vol. x, p. 81.

(257) vol. vi, 1868, p. 254, pl. xxx, Obs. Gen. Unio, (259) vol. xii, p. 14, , f. 68.

(257) vol. vi, 1868, p. 294, pl. xlii, Obs. Gen. Unio, (259) vol. xii, p. 54, , f. 105.

., (116) vol. viii, 1856, p. 262; J. A. (148) vol. iv, 1858; p. 60, pl. ix, f. s. Gen. Unio, (150) vol. vi, p. 60, pl. 2.

nus.

(55) vol. x, 1845, p. 77, pl. vi, f. 17; N. S., (203) vol. v, 1861, p. 66; Obs. Unio, (56) vol. iv, p. 77, pl. vi, f. 17, ol. viii, p. 70.

(257) vol. vi, 1868, p. 279, pl. xxxviii, Obs. Gen. Unio, (259) vol. xii, p. 39, xviii, f. 97.

Unio exactus.

P. A. N. S., (136) vol. x, 1858, p. 111; J. A. N. S., (203) vol. v, 1861, p. 62, pl. iv, f. 210; Obs. Gen. Unio, (205) vol. viii, p. 66, pl. iv, f. 210.

U. exacutus.

J. A. N. S., (273) vol. viii, 1874, p. 45, pl. xv, f. 43; Obs. Gen. Unio, (275) vol. xiii, p. 49, pl. xv, f. 43.

U. excavatus.

P. A. N. S., (119) vol. ix, 1857, p. 32; J. A. N. S., (148) vol. iv, 1858, p. 71, pl. xiii, f. 52; (274) vol. viii, 1874, p. 68, pl. xxi, f. 6; Obs. Gen. Unio, (150) vol. vi, p. 71, pl. xiii, f. 52; (275) vol. xiii, p. 72, pl. xxi, f. 6.

U. eximius.

P. A. N. S., (116) vol. viii, 1856, p. 93; J. A. N. S., (133) vol. iii, 1857, p. 294, pl. xxv, f. 8; Obs. Gen. Unio, (150) vol. vi, p. 14, pl. xxv, f. 8.

U. exiguus.

P. A. P. S., (35) vol. i, 1840, p. 287; T. A. P. S., (43) vol. viii, 1840, p. 191, pl. vii, f. 1; J. A. N. S., (148) vol. iv, 1858, p. 57; (189) vol. iv, 1860, pp. 328, 354; (221) vol. v, 1863, p. 418; Obs. Gen. Unio, (44) vol. iii, p. 29, pl. vii, f. 1; (150) vol. vi, p. 57; (205) vol. viii, pp. 10, 36; (222) vol. x, p. 54.

U. extensus.

P. A. N. S., (119) vol. ix, 1857, p. 31; J. A. N. S., (148) vol. iv, 1858, pp. 67, 94, pl. xii, f. 49; (159) vol. iv, 1859, p. 216; Obs. Gen. Unio, (150) vol. vi, pp. 67, 94, pl. xii, f. 49; (170) vol. vii, p. 34.

U. faba.

T. A. P. S., (27) vol. vi, 1838, pp. 129, 148; (79) vol. x, 1852, p. 261; Obs. Gen. Unio, (29) vol. ii, pp. 129, 148; (83) vol. v, p. 17.

U. fabaceus.

P. A. N. S., (192) vol. xiii, 1861, p. 38; J. A. N. S., (203) vol. v, 1861, p. 90, pl. xiii, f. 238; Obs. Gen. Unio, (205) vol. viii, p. 94, pl. xiii, f. 238.

U. fabalis.

T. A. P. S., (15) vol. iv, 1830, p. 86, pl. x, f. 16; (27) vol. vi, 1838, pp. 128, 146; (43) vol. viii, 1840, pp. 223, 231; (79) vol. x, 1852, pp. 261, 262; J. A. N. S., (221) vol. v, 1863, pp. 423, 448; Obs. Gen. Unio, (21) vol. i, p. 96, pl. x, f. 16; (29) vol. ii, pp. 128, 146; (44) vol. iii, p. 61, 69; (83) vol. v, pp. 17, 18; (222) vol. x, pp. 59, 94.

U. fallax.

P. A. N. S., (119) vol. ix, 1857, p. 32; J. A. N. S., (148) vol. iv, 1858, pp. 74, 77, 79, pl. xv, f. 50; (159) vol. iv, 1859, p. 208; (274) vol. viii, 1874, p. 69, pl. xxi, f. 8; Obs. Gen. Unio, (150) vol. vi, pp. 74, 77, 79, pl. xv, f. 50; (170) vol. vii, p. 26; (275) vol. xiii, p. 73, pl. xxi, f. 8.

U. fasciata.

T. A. P. S., (27) vol. vi, 1838, pp. 127, 144; Obs. Gen. Unio, (29) vol. ii, pp. 127, 144.

U. fasciolus.

T. A. P. S., (27) vol. vi, 1838, p. 127; Obs. Gen. Unio, (29) vol. ii, p. 127.

Unio fasciolaris.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, vol. ii, p. 144.

U. fassinans.
J. A. N. S., (258) vol. vi, 1868, p. 305, pl. xlvii, f. 118; Obs. Gen. Unio, (250) vol. xii, p. 65, pl. xlvii, f. 118.

U. fatuus.
P. A. P. S., (35) vol. i, 1840, p. 287; T. A. P. S., (43) vol. viii, 1840, p. 201, pl. xi, f. 14; Obs. Gen. Unio, (44) vol. iii, p. 39, pl. xi, f. 14.

U. favidens.
J. A. N. S., (168) vol. iv, 1859, p. 271; (203) vol. v, 1861, pp. 72, 82; Obs. Gen. Unio, (170) vol. vii, p. 89; (205) vol. viii, pp. 76, 86.

U. favosus.
P. A. N. S., (116) vol. viii, 1856, p. 262; J. A. N. S., (148) vol. iv, 1858, pp. 58, 59, pl. viii, f. 40; Obs. Gen. Unio, (150) vol. vi, pp. 58, 59, pl. viii, f. 40.

U. fibuloides.
P. A. N. S., (153) vol. xi, 1859, p. 154; J. A. N. S., (159) vol. iv, 1859, p. 219, pl. xxviii, f. 100; (221) vol. v, 1863, p. 443; Obs. Gen. Unio, (170) vol. vii, p. 37, pl. xxviii, f. 100; (222) vol. x, p. 79.

U. firmus.
J. A. N. S., (257) vol. vi, 1868, p. 267, pl. xxxiv, f. 82; Obs. Gen. Unio, (259) vol. xii, p. 27, pl. xxxiv, f. 82.

U. Fisherianus.
T. A. P. S., (27) vol. vi, 1834, p. 8, pl. iv, f. 8; 1838, pp. 132, 146; (79) vol. x, 1852, p. 278; J. A. N. S., (148) vol. iv, 1858, p. 65; (203) vol. v, 1861, p. 57; (221) vol. v, 1863, p. 456; (242) vol. v, 1866, p. 12; Obs. Gen. Unio, (29) vol. ii, pp. 8, 132, 146, pl. iv, f. 8; (83) vol. v, p. 34; (150) vol. vi, p. 65; (205) vol. viii, p. 61; (222) vol. x, p. 92; (244) vol. xi, p. 16.

U. flava.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. flavescens.
T. A. P. S., (55) vol. x, 1845, p. 72, pl. iii, f. 9; Obs. Gen. Unio, (56) vol. iv, p. 72, pl. iii, f. 9.

U. flavidulus.
P. A. N. S., (192) vol. xiii, 1861, p. 39; J. A. N. S., (203) vol. v, 1861, p. 97, pl. xv, f. 245; Obs. Gen. Unio, (205) vol. viii, p. 101, pl. xv, f. 245.

U. flavidus.
J. A. N. S., (273) vol. viii, 1874, p. 28; Obs. Gen. Unio, (275) vol. xiii, p. 32, pl. ix, f. 25.

U. flexuosus.
T. A. P. S., (27) vol. vi, 1838, p. 122; Obs. Gen. Unio, (29) vol. ii, p. 122.

U. flexus.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. Florentinus.
P. A. N. S., (120) vol. ix, 1857, p. 83; J. A. N. S., (203) vol. v, 1861, pp. 63, 64, pl. v, f. 213; Obs. Gen. Unio, (205) vol. viii, pp. 67, 68, pl. v, f. 213.

Unio Floridensis.
T. A. P. S., (79) vol. x, 1852, p. 27
Obs. Gen. Unio, (83) vol. v, p
31; P. A. P. S., (93) vol. v, 1

U. fluctiger.
P. A. N. S., (152) vol. xi, 1859, p.
S., (168) vol. iv, 1859, p. 250, p
(242) vol. vi, 1866, p. 60; Ob
(170) vol. vii, p. 68, pl. xxxi
vol. xi, p. 64.

U. fluviatilis.
T. A. P. S., (12) vol. iii, 1829, p
vi, 1838, p. 130; Obs. Gen.
i, p. 30; (29) vol. ii, p. 130.

U. foliatus.
T. A. P. S., (12) vol. iii, 1829, p
iv, 1831, p. 113; (27) vol.
1838, pp. 122, 146; (43) vol
231; (79) vol. x, 1852, p. 278
(115) vol. viii, 1856, p. 213
(221) vol. v, 1863, p. 443; Ob
(21) vol. i, pp. 33, 123; (29)
122, 146; (44) vol. iii, p. 6
p. 34; (222) vol. x, p. 79.

U. folliculatus.
T. A. P. S., (27) vol. vi, 1836,
131, 146; (43) vol. viii, 184
vol. x, 1852, p. 260; Obs. G
vol. ii, pp. 38, 131, 146, pl.
vol. iii, p. 75; (83) vol. v, p.

U. Fontainiana.
T. A. P. S., (27) vol. vi, 1838, pp.
Gen. Unio, (29) vol. ii, pp. 134
x, p. 22; J. A. N. S., (220) vol.

U. fontinalis.
T. A. P. S., (27) vol. vi, 1838, p.
Unio (29) vol. ii, p. 144.

U. Footiana.
J. A. N. S., (242) vol. vi, 1866, p.
Unio, (244) vol. xi, p. 30.

U. Forbesianus.
P. A. P. S., (93) vol. v, 1852, p.
S., (79) vol. x, 1852, p. 264,
J. A. N. S., (148) vol. iv, 18
vol. iv, 1829, p. 217; Obs. G
vol. v, p. 20, pl. xvi, f. 17;
89; (170) vol. vii, p. 35.

U. Foremanianus.
T. A. P. S., (43) vol. viii, 18
xxvii, f. 64; J. A. N. S.,
1859, pp. 200, 218; (221) vol.
Obs. Gen. Unio, (44) vol.
xxvii, f. 64; (170) vol. vii, p
vol. v, p. 79.

U. formosus.
T. A. P. S., (15) vol. iv, 1831, p.
41; (27) vol. vi, 1836, p. 50; 18
vol. viii, 1841, pp. 231, 248; O
(21) vol. i, p. 121, pl. xvi, f. 4
pp. 50, 124; (44) vol. ii, pp. 69,

U. Forsheyi.
P. A. N. S., (154) vol. xi, 1859, p
S., (189) vol. iv, 1860, p. 357
(213) vol. v, 1862, p. 208; O
(205) vol. viii, p. 39, pl. ix, f.
ix, p. 30.

vol. iii, 1829, p. 452; (27) vol. vi,
, 144; Obs. Gen. Unio, (21) vol.
vol. ii, pp. 121, 144.

vol. vi, 1838, pp. 123, 146; (43)
l, p. 231; Obs. Gen. Unio, (29)
23, 146; (44) vol. iii, p. 69.

vol. x, 1852, p. 263, pl. xvi, f. 15;
(93) vol. v, 1852, p. 251; J. A. N.
. v, 1863, p. 410; Obs. Gen. Unio,
p. 19, pl. xvi, f. 15.

) vol. xii, 1860, p. 92; J. A. N. S.,
v, 1861, p. 346; Obs. Gen. Unio,
ii, p. 28.

vol. vi, 1838, p. 144; Obs. Gen.
ol. ii, p. 144.

vol. x, 1845, p. 73, pl. iv, f. 10; J.
3) vol. v, 1861, p. 73; Obs. Gen.
vol. iv, p. 73, pl. iv, f. 10; (205)
77.

vol. x, 1845, p. 78, pl. vii, f. 19;
Unio, (56) vol. iv, p. 78, pl. vii, f.

vol. v, 1834, p. 96, pl. xiii, f. 39;
, 1838, pp. 130, 144, 146; (79) vol.
58; J. A. N. S., (203) vol. v, 1861,
Gen. Unio, (21) vol. i, p. 208, pl.
29) vol. ii, pp. 130, 144, 146; (83)
; (205) vol. viii, p. 59.

) vol. ix, 1857, p. 171; J. A. N. S.,
v, 1858, pp. 88, 89, pl. xviii, f. 68;
, 1859, pp. 197, 218; (189) vol. iv,
3, 353, pl. lix, f. 178; (213) vol. v,
l, 202; Obs. Gen. Unio, (150) vol.
), pl. xviii, f. 68; (170) vol. vii,
(205) vol. viii, pp. 30, 35, pl. lix,
vol. ix, pp. 23, 24.

) vol. xii, 1860, p. 91; J. A. N. S.,
, 1863, pp. 378, 381, pl. xli, f. 286;
Unio, (222) vol. x, pp. 14, 17, pl.

vol. vi, 1838, pp. 134, 151; Obs.
(29) vol. ii, pp. 134, 151.

) vol. ix, 1843, p. 277, pl. xl, f. 4;
. (242) vol. vi, 1866, p. 47; Obs.
(56) vol. iv, p. 277, pl. xl, f. 4;
, p. 51.

vol. vi, 1838, p. 128; Obs. Gen.
l. ii, p. 128.

vol. vi, 1838, p. 20; Obs. Gen.
. ii, p. 128.

Unio Gabbianus.
J. A. N. S., (257) vol. vi, 1868, p. 295, pl. xliii, f. 106; Obs. Gen. Unio, (259) vol. xii, p. 55, pl xliii, f. 106.

U. Gastonensis.
J. A. N. S., (242) vol. vi, 1866, p. 20, pl. vi, f. 18; Obs. Gen. Unio, (244) vol. xi, p. 24, pl. vi, f. 18.

U. Geddingsianus.
P. A. P. S., (35) vol. i, 1840, p. 285; T. A. P. S, (43) vol. viii, 1840, p. 202, pl. xi, f 15; (79) vol. x, 1852, p. 259; Obs. Gen. Unio, (44) vol. iii, p. 40, pl. xi, f. 15; (85) vol. v, p. 15; (150) vol. vi, p. 91; J. A. N. S., (148) vol. iv, 1858, p. 91.

U. geminus.
P. A. N. S., (116) vol viii, 1856, p. 202; J. A. N. S., (148) vol. iv, 1858, pp. 63, 86, pl. x, f. 45; Obs. Gen. Unio, (150) vol. vi. pp. 45, 86, pl. x, f. 45.

U. generosus.
J. A. N. S., (213) vol. v, 1862, p. 195; Obs. Gen. Unio, (215) vol. ix, p. 17.

U. Genthii.
P. A. N. S., (123) vol. ix, 1857, p. 85; J. A. N. S., (203) vol. v, 1861, p. 57, pl. ii, f. 204; Obs. Gen. Unio, (205) vol. viii, p. 61, pl. ii, f. 204.

U. genuinus.
J. A. N. S., (258) vol. vi, 1868, p. 305, pl. xlvi, f. 117; Obs. Gen. Unio, (259) vol. xii, p. 64, pl. xlvi, f. 117.

U. geometricus.
T. A. P. S., (20) vol. v, 1832, p. 38, pl. iv, f. 10; (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (21) vol. i, p. 150, pl. iv, f. 10; (29) vol. ii, p. 130.

U. Georgina.
T. A. P. S., (12) vol. iii, 1829, pp. 416, 422; (20) vol. v, 1833, p. 89; (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (21) vol. i, pp. 30, 36, 201; (29) vol. ii, p. 130.

U. Georgianus.
P. A. P. S., (39) vol. ii, 1841, p. 31; T. A. P. S., (43) vol. viii, 1841, p. 235, pl. xxi, f. 49; Obs. Gen. Unio, (44) vol. iii, p. 73, pl. xxi, f. 49.

U. Gerhardtii.
J. A. N. S., (213) vol. v, 1862, p. 208, pl. xxxi, f. 277; Obs. Gen. Unio, (215) vol. ix, p. 30, pl. xxxi, f. 277.

U. germanus.
P. A. N. S., (292) vol. xiii, 1861, p. 40; J. A. N. S., (242) vol. vi. 1866, p. 49, pl. xix, f. 54; Obs. Gen. Unio, (244) vol. xi, p. 53, pl. xix, f. 54.

U. Gesnerii.
J. A. N. S., (242) vol. vi, 1866, p. 26; (274) vol. viii, 1874, p. 65, pl. xxii, f. 61; Obs. Gen. Unio, (244) vol. xi, p. 230; (275) vol. xiii, p. 60, pl. xxii, f. 61.

U. gibbus.
T. A. P. S., (27) vol. vi, 1838, pp. 128, 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 128, 134, 151.

U. gibber.
T. A. P. S., (27) vol. vi, 1836, p. 35, pl. x, f. 30; 1838, pp. 125. 146; Obs. Gen. Unio, (29) vol. ii, pp. 35, 125, 126, pl. x, f. 30.

Unio Gilbertianus.

P. A. P. S., (100) vol. v, 1838, p. 38; T. A. P. S., (29) vol. x, 1847, p. 38; Obs. Gen. Unio, (29) vol. v, p. 18, pl. xii, f. 32.

U. gilbertianus.

T. A. P. S., (12) vol. iii, 1829, pp. 420, 422, 423, 432, 433; (26) vol. v, 1833, pp. 88, 102; (27) vol. ii, pp. 18, 37, 124, 137, 138, 146; (40) vol. viii, 1841, pp. 256, 257; P. A. N. S., (100) vol. viii, 1844, p. 252; J. A. N. S., (102) vol. iv, 1852, p. 56; (221) vol. v, 1853, p. 427; (222) vol. vi, 1854, p. 25; (229) vol. viii, 1857, p. 69, pl. xxi, f. 18; Obs. Gen. Unio, (21) vol. i, pp. 22, 26, 31, 37, 48, 201, 216; (29) vol. ii, pp. 18, 27, 124, 133, 136, 146; (40) vol. iii, pp. 32, 69; (150) vol. vi, p. 56; (222) vol. x, p. 32; (229) vol. xi, p. 31; (235) vol. xiii, p. 78, pl. xxi, f. 18.

U. gigantea.

T. A. P. S., (12) vol. iii, 1829, pp. 427, 431; J. A. N. S., (242) vol. vi, 1866, p. 25; Obs. Gen. Unio, (21) vol. i, pp. 31, 35; (244) vol. xi, p. 29.

U. gigas.

T. A. P. S., (27) vol. vi, 1836, pp. 121, 146; Obs. Gen. Unio, (29) vol. ii, pp. 121, 146.

U. glaber.

T. A. P. S., (27) vol. vi, 1836, p. 34, pl. x, f. 29; 1838, pp. 128, 146; J. A. N. S., (169) vol. iv, 1860, p. 341; Obs. Gen. Unio, (29) vol. ii, pp. 34, 128, 146, pl. x, f. 29; (235) vol. viii, p. 28.

U. glabratus.

T. A. P. S., (12) vol. iii, 1829, p. 423; (26) vol. v, 1833, p. 89; (27) vol. vi, 1838, pp. 130, 135; Obs. Gen. Unio, (21) vol. i, pp. 37, 201; (29) vol. ii, pp. 130, 135.

U. glandinosus.

P. A. N. S., (196) vol. xiii, 1861, p. 59; J. A. N. S., (203) vol. v, 1861, p. 77, pl. ix, f. 226; Obs. Gen. Unio, (205) vol. viii, p. 81, pl. ix, f. 226.

U. [illegible]

T. A. P. S., (15) vol. iv, 1830, p. 82, pl. viii, f. 12; (27) vol. vi, 1834, p. 7; 1838, pp. 129, 146; (40) vol. viii, 1841, p. 245; (54) vol. ix, 1843, p. [illegible]; (79) vol. x, 1852, p. 284; J. A. N. S., (140) vol. iv, 1838, p. 73; (150) vol. iv, 1859, pp. 100, [illegible]; (221) vol. v, 1853, p. 405; Obs. Gen. Unio, (21) vol. i, p. 92, pl. viii, f. 12; (29) vol. ii, pp. 7, 129, 146; (44) vol. iii, p. [illegible]; (100) vol. iv, p. 275; (83) vol. v, p. 40; (150) vol. vi, p. [illegible]; (170) vol. vii, pp. 16, 37; (222) vol. x, p. 41.

[illegible]

[illegible]

[illegible]

Unio Gonaxenensis.

P. A. N. S., (200) vol. x, 1858, p. 110; J. A. N. S., (222) vol. iv, 1853, pp. 203, 204, pl. xi, f. 10; Obs. Gen. Unio, (170) vol. vii, pp. 31, 32, pl. xii, f. 10.

U. [illegible]

T. A. P. S., (26) vol. x, 1847, p. 74, pl. xi, f. 10; Obs. Gen. Unio, (29) vol. iv, p. 72, pl. xi, f. 10.

U. granifolatus.

P. A. N. S., (120) vol. ix, 1857, p. 65; J. A. N. S., (222) vol. v, 1853, p. 62, pl. iii, f. 25; Obs. Gen. Unio, (229) vol. viii, p. 62, pl. iii, f. 25.

U. granifer.

P. A. N. S., (120) vol. viii, 1856, p. 220; J. A. N. S., (169) vol. iv, 1859, p. 58, pl. viii, f. 10; (222) vol. iv, 1853, p. 180; Obs. Gen. Unio, (150) vol. vi, p. 56, pl. viii, f. 10; (170) vol. vii, p. 16.

U. granilis.

T. A. P. S., (12) vol. iii, 1829, pp. 427, 431; (6) vol. vi, 1836, p. 36; 1838, pp. 131, 146; (6) vol. viii, 1841, p. 251; J. A. N. S., (6) vol. iv, 1852, p. 220; (221) vol. v, 1853, p. 424; Obs. Gen. Unio, (21) vol. i, pp. 31, 35; (29) vol. ii, pp. 36, 131, 146; (40) vol. iii, p. 69; (170) vol. vii, p. 40; (222) vol. x, p. 31.

U. Granadensis.

J. A. N. S., (237) vol. vi, 1866, p. 288, pl. xii, f. 169; Obs. Gen. Unio, (229) vol. xii, p. 8, pl. xiii, f. 169.

U. grandidens.

J. A. N. S., (213) vol. v, 1862, p. 205, pl. xxx f. 274; Obs. Gen. Unio, (215) vol. ix, p. 7, pl. xxx, f. 274.

U. graniferus.

T. A. P. S., (27) vol. vi, 1836, p. 69, pl. xix f. 60; 1838, pp. 123, 146; Obs. Gen. Unio, (29) vol. ii, pp. 69, 123, 146, pl. xix, f. 60.

U. granosa.

T. A. P. S., (12) vol. iii, 1829, p. 424; (26) vol. v, 1833, p. 91; (27) vol. vi, 1838, pp. 124, 130, 148; Obs. Gen. Unio, (21) vol. i, pp. 38, 203; (29) vol. ii, pp. 124, 130, 146.

U. granulatus.

P. A. N. S., (196) vol. xiii, 1861, p. 60; T. A. P. S., (27) vol. vi, 1838, p. 144; J. A. N. S., (242) vol. vi, 1866, p. 48, pl. xvi, f. 46; (259) vol. vi, 1868, p. 327; Obs. Gen. Unio, (29) vol. ii, p. 144; (244) vol. xi, p. 52, pl. xvi, f. 46; (259) vol. xii, p. 87.

U. gratiosus.

J. A. N. S., (133) vol. iii, 1857, pp. 297, 298, 303; (168) vol. iv, 1859, p. 251; (226) vol. v, 1853, p. 298; Obs. Gen. Unio, (150) vol. vi, pp. 17, 19, 23; (170) vol. vii, p. 69; (222) vol. x, p. 31.

U. [illegible]

P. A. N. S., (176) vol. xii, 1860, p. 91; J. A. N. S., (229) vol. v, 1853, p. 382, pl. xliii, f. 280; Obs. Gen. Unio, (222) vol. x, p. 18, pl. xlii, f. 280.

gravidus.

P. A. N. S., (110) vol. viii, 1856, p. 93; J. A. N. S., (133) vol. iii, 1857, p. 292, pl. xxiv, f. 5; Obs. Gen. Unio, (150) vol. vi, p. 12, pl. xxiv, f. 5.

Grayanus.

T. A. P. S., (20) vol. v, 1833, p. 66, pl. ix, f. 26; 1834, p. 96; (27) vol. vi, 1834, p. 8, 1838, pp. 122, 145; Obs. Gen. Unio, (21) vol. i, pp. 178, 208, pl. ix, f. 26; (29) vol. ii, pp. 8, 122, 145.

Greenii.

T. A. P. S., (27) vol. vi, 1838, pp. 127, 146; (55) vol. x, 1845, p. 73; J. A. N. S., (159) vol. iv, 1859, p. 200; Obs. Gen. Unio, (29) vol. ii, pp. 127, 146; (56) vol. iv, p. 73; (170) vol. vii, p. 18.

Griffithianus.

T. A. P. S., (20) vol. v, 1834, p. 103, pl. xv, f. 46; (27) vol. vi, 1838, pp. 130, 146; J. A. N. S., (243) vol. vi., 1866, p. 24; Obs. Gen. Unio, (21) vol. i, p. 215, pl. xv, f. 46; (29) vol. ii, pp. 130, 146; (244) vol. xi, p. 28.

Groenlandicus.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

Guatemiana.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

Grundlachi.

J. A. N. S., (168) vol. iv, 1859, p. 259; Obs. Gen. Unio, (170) vol. vii, p. 77.

Hainesianus.

P. A. N. S., (110) vol. viii, 1856, p. 92; J. A. N. S., (133) vol. iii, 1857, p. 289, pl. xxi, f. 1; Obs. Gen. Unio, (150) vol. vi, p. 4, pl. xxi, f. 1.

Haleianus.

T. A. P. S., (43) vol. viii, 1842, p. 247, pl. xxvii, f. 63; (55) vol. x, 1845, p. 80; (79) vol. x, 1852, p. 269; Obs. Gen. Unio, (44) vol. iii, p. 85, pl. xxvii, f. 63; (56) vol. iv, p. 80; (83) vol. v, p. 23.

Hallenbeckii.

P. A. N. S., (156) vol. xi, 1859, p. 170; J. A. N. S., (148) 1858, vol. iv, p. 83; (189) vol. iv, 1860, pp. 328, 333, pl. li, f. 154; Obs. Gen. Unio, (150) vol. vi, p. 83; (205) vol. viii, pp. 10, 15, 18, pl. li, f. 1, 54.

Hanleyianus.

P. A. P. S., (93) vol. v, 1852, p. 251; T. A. P. S., (79) vol. x, 1853, p. 279, pl. xxiii, f. 37; J. A. N. S., (159) vol. iv, 1859, p. 192; (189) vol. iv, 1860, p. 344; (203) vol. v, 1861, pp. 84, 85, 97; Obs. Gen. Unio, (83) vol. v, p. 35, pl. xxiii, f. 37; (170) vol. vii, p. 10; (205) vol. viii, pp. 28, 88, 89, 101.

Hamatus.

J. A. N. S., (274) vol. viii, 1874, p. 56; Obs. Gen. Unio, (275) vol. xiii, p. 60, pl. xix, f. 54.

Hartmanianus.

P. A. N. S., (189) vol. xii, 1860, p. 307; J. A. N. S., (203) vol. v, 1861, p. 73, pl. viii, f. 222; Obs. Gen. Unio, (205) vol. viii, p. 77, pl. viii, f. 222.

Unio Haysianus.

T. A. P. S., (20) vol. v, 1832, pp. 30, 35, pl. iii, f. 7; 1833, p. 69; (27) vol. vi, 1838, pp. 126, 146; J. A. N. S., (148) vol. iv, 1858, p. 75; Obs. Gen. Unio, (20) vol. i, pp. 142, 147, 181, pl. iii, f. 7; (29) vol. ii, pp. 126, 146; (150) vol. vi, p. 75.

U. Hazlehurstianus.

J. A. N. S., (159) vol. iv, 1859, p. 211, pl. xxvi, f. 92; P. A. N. S., (143) vol. x, 1858, p. 166; Obs. Gen. Unio, (170) vol. vii, p. 29, pl. xxvi, f. 92.

U. hebes.

P. A. P. S., (93) vol. v, 1852, p. 251; T. A. P. S., (79) vol. x, 1852, p. 267, pl. xviii, f. 21; J. A. N. S., (189) vol. iv, 1860, p. 339; (203) vol. v, 1861, p. 91; (242) vol. vi, 1866, p. 6; Obs. Gen. Unio, (83) vol. v, p. 23, pl. xviii, f. 21; (205) vol. viii, p. 21, 95; (244) vol. xi, p. 10.

U. Heermannii.

P. A. N. S., (200) vol. xiii, 1861, p. 392; J. A. N. S., (213) vol. v, 1862, p. 194, pl. xxvi, f. 263; Obs. Gen. Unio, (215) vol. ix, p. 16, pl. xxvi, f. 263.

U. Hembeli.

T. A. P. S., (79) vol. x, 1852, p. 263; J. A. N. S., (168) vol. iv, 1859, p. 245; Obs. Gen. Unio, (83) vol. v, p. 19; (170) vol. vii, p. 63.

U. hepaticus.

P. A. N. S., (154) vol. xi, 1859, p. 154; J. A. N. S., (189) vol. iv, 1860, p. 248, pl. lvii, f. 173; (242) vol. vi, 1866, p. 14; Obs. Gen. Unio, (205) vol. viii, p. 30, pl. lvii, f. 173; (244) vol. xi, p. 18.

U. heros.

T. A. P. S., (27) vol. vi, 1838, p. 122; Obs. Gen. Unio, (29) vol. ii, p. 122.

U. heterodon.

T. A. P. S., (12) vol. iii, 1829, pp. 409, 411, 420, 428, pl. viii, f. 11; (27) vol. vi, 1836, p. 56; 1838, pp. 124, 146; J. A. N. S., (148) vol. iv, 1858, p. 79; (221) vol. v, 1863, p. 442; Obs. Gen. Unio, (21) vol. i, pp. 23, 25, 34, 42, pl. viii, f. 11; (29) vol. ii, pp. 56, 124, 146; (150) vol. vi, p. 79; (222) vol. x, p. 78.

U. hians.

T. A. P. S., (27) vol. vi, 1838, p. 135; Obs. Gen. Unio, (29) vol. ii, p. 135.

U. Higginsii.

P. A. N. S., (121) vol. ix, 1857, p. 84; J. A. N. S., (213) vol. v, 1862, p. 188, pl. xxiv, f. 258; Obs. Gen. Unio, (215) vol. ix, p. 10, pl. xxiv, f. 258.

U. Hildrethianus.

T. A. P. S., (20) vol. v, 1832, pp. 36, 64, pl. iii, f. 8; (27) vol. vi, 1838, pp. 128, 146; Obs. Gen. Unio, (21) vol. i, pp. 148, 176, pl. iii, f. 8; (29) vol. ii, pp. 128, 146.

U. hippopœus.

T. A. P. S., (55) vol. x, 1845, p. 67, pl. i, f. 1; Obs. Gen Unio, (56) vol. iv, p. 67, pl. i, f. 1.

U. Holstonensis.

P. A. P. S., (35) vol. i, 1840, p. 288; T. A. P. S., (43) vol. viii, 1840, p. 212, pl. xv, f. 27; Obs. Gen. Unio, (44) vol. iii, p. 50, pl. xv, f. 27.

io Homsensis.
J. A. N. S., (257) vol. vi, 1868, p. 249, pl. xxix, f. 63; Obs. Gen. Unio, (259) vol. xii, p. 9, pl. xxix, f. 63.

Hopetonensis.
T. A. P. S., (27) vol. vi, 1836, p. 29, pl. ix, f 24; 1838, pp. 129, 146; (79) vol. x, 1852, p. 263; J. A. N. S., (133) vol. iii, 1857, p. 305; (221) vol. v, 1863, p. 415; P. A. N. S., (131) vol. ix, 1857, p. 205; Obs. Gen. Unio, (29) vol. ii, pp. 29, 129, 146, pl ix, f. 24; (83) vol. v, p. 19; (150) vol. vi, p. 25; (222) vol. x, p. 51.

U Housei.
P. A. N. S., (110) vol. viii, 1856, p. 92; J. A. N. S., (133) vol. iii, 1857, pp. 290, 291, pl. xxiii, f. 3; Obs. Gen. Unio, (150) vol. vi, pp. 10, 11, pl. xxiii, f. 3.

U. Houstonensis.
P. A. N. S., (154) vol. xi, 1839, p. 155; J. A. N. S., (189) vol. iv, 1860, pp. 358, 372, pl. lx, f. 182; Obs. Gen. Unio, (205) vol. viii, pp. 40, 54, pl. lx, f. 183.

U. humerosus.
J. A. N. S., (257) vol. vi, 1868, p. 301, pl. xlv, f. 113; Obs. Gen. Unio, (259) vol. xii, p. 61, pl. xlv, f. 113.

U. humilis.
P. A. N. S., (110) vol. viii, 1856, p. 93; J. A. N. S., (133) vol. iii, 1857, pp. 296, 297, pl. xxvi, f. 10; Obs. Gen. Unio, (150) vol. vi, pp. 16, 17, pl. xxvi, f. 10.

U. hyalinus.
T. A. P. S., (55) vol. x, 1845, pp. 69, 71, pl. ii, f. 4; Obs. Gen. Unio, (56) vol. iv, pp. 69, 71, pl. ii, f. 4.

U. hybridus.
T. A. P. S., (27) vol. vi. 1838, pp 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. Hydianus.
T. A. P. S., (27) vol. vi, 1834, p, 14, pl. vi, f. 14; 1838, pp. 106, 127, 146; (55) vol. x, 1845, pp. 75, 76; J. A. N. S., (274) vol. viii, 1874, p. 68; Obs. Gen. Unio, (29) vol. ii, pp. 14, 106, 127, 146, pl. vi, f. 14; (56) vol. iv, pp. 75, 76; (275) vol. xiii, p. 72.

U. hylæa.
T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. icterinus.
T. A. P. S., (27) vol. vi, 1838, p. 130; Obs. Gen, Unio, (29) vol. ii, p. 130.

U. incrassatus.
P. A. P. S., (35) vol, i, 1840, p. 286; T. A. P. S., (43) vol. viii, 1840, p. 217, pl. xvi, f. 34; (79) vol, x, 1852, p. 264; J. A. N. S., (159) vol. iv, 1859, p. 217; (221) vol. 5, 1863, p. 409; Obs. Gen. Unio, (44) vol. iii, p. 55, pl. xvi, f. 34; (83) vol. v, p. 40; (170) vol. vii, p. 35; (222) vol. x, p. 45.

U. incurvus.
T. A. P. S., (15) vol. iv, 1830, p. 97, pl. xiii, f. 27; (20) vol. v, 1833, p. 90; (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (21) vol. i, pp. 107, 202, [illegible] (29) vol. ii, p. 130.

Unio indefinitus.
J. A. N. S., (242) vol. vi, 1866, p. 15, pl. iv [illegible] f. 12; Obs. Gen. Unio, (244) vol. xi, p. 19, [illegible] pl. iv, f. 12.

U. ineptus.
T. A. P. S., (79) vol. x. 1852, p. 261, pl. xv, f. [illegible] 12; J. A. N. S., (242) vol. vi, 1866, p. 21; O[illegible] Gen. Unio, (83) vol. v, p. 17, pl. xv, f. [illegible] 12; (244) vol. xi, p. 25.

U. inflatus.
T. A. P. S., (12) vol. iii, 1829, p. 419; (27) vol [illegible] vi, 1838, pp. 121, 127, 146; J. A. N. S., (221) [illegible] vol. v, 1863, p. 435; P. A. N. S., (118) vol. [illegible] ix, 1857, p. 18; Obs. Gen. Unio, (21) vol. [illegible] p. 33; (29) vol. ii, pp. 121, 127, 146; (222) [illegible] vol. x, p. 71.

U. infucatus.
T. A. P. S., (27) vol. vi, 1838, pp. 131, 146; [illegible] vol. x, 1852, p. 265; J. A. N. S., (221) vo[illegible] v, 1863, p. 407; Obs. Gen. Unio, (29) vol. ii. [illegible] pp. 131, 146; (83) vol. v, p. 21; (222) vol. x, p. [illegible] 41.

U. infulgens.
J. A. N. S., (274) vol. viii, 1874, p. 60, pl. xx[illegible] f. 59; Obs. Gen. Unio, (275) vol. xiii, p. [illegible] 64, pl. xxi, f. 59.

U. infuscus.
J. A. N. S., (273) vol. viii, 1874, p. 51, pl. xvi[illegible] f. 49; Obs. Gen. Unio, (275) vol. xiii, p. 15, [illegible] pl. xvii, f. 49.

U. Ingallsianus.
P. A. P. S., (93) vol. v, 1852, p. 251; T. A. P. [illegible] S., (79) vol. x, 1852, p. 282, pl. xxiv, f. 41; J. [illegible] A. N. S., (133) vol. iii, 1857, pp. 298, 300; [illegible] vol. vi, 1866, p. 62; Obs. Gen. Unio, (83) [illegible] vol. v, p. 38, pl. xxiv, f. 41; (150) vol. vi, pp. [illegible] 18, 20; (244) vol. xi, p. 66.

U. inornatus.
P. A. N. S., (110) vol. viii, 1856, p. 93; J. A. [illegible] S., (133) vol. iii, 1857, pp. 293, 300, pl. x[illegible] f. 6; (168) vol. iv, 1859, p. 237; Obs. G[illegible] Unio, (150) vol. vi, pp. 13, 20, pl. xxiv, f. [illegible] (170) vol. vii, p. 75.

U. insolidus.
J. A. N. S., (273) vol. viii, 1874, p. 40, pl. x[illegible] 37; Obs. Gen. Unio, (275) vol. xiii, p. 44, [illegible] xiii, f. 37.

U. instructus.
P. A. N. S., (196) vol. xiii, 1861, p. 59; J. A. [illegible] S., (203) vol. v, 1861, pp. 72, 78, 83, pl. [illegible] 230; Obs. Gen. Unio, (205) vol. viii, pp. [illegible] 82, 86, pl. x, f. 230.

U. insulsus.
P. A. N. S., (123) vol. ix, 1857, p. 89; J. A. N. [illegible] (203) vol. v, 1861, p. 53, pl. i, f. 199; Obs. [illegible] Unio, (205) vol. viii, p. 57, pl. i, f. 199.

U. intercedens.
P. A. N. S., (119) vol. ix, 1857, p. 32; J. A. N. [illegible] (148) vol. iv, 1858, pp. 77, 89, pl. xv, f. [illegible] 57; (189) vol. iv, 1860, p. 328; Obs. Gen. U[illegible] (150) vol. vi, pp. 77, 90, pl. xv, f. 57; (205) vol. viii, p. 10.

U. intermedius.
T. A. P. S., (43) vol. viii, 1840, p. 211; (79) vol. x, 1852, p. 267; Obs. Gen. Unio, (44) vol. iii, p. 49; (83) vol. v, p. 23.

Unio interruptus.

T. A. P. S., (27) vol. vi, 1834, p. 15, pl. vi, f. 15; 1836, p. 70; 1838, pp. 122, 127, 144, 146; (43) vol. viii, 1841, p. 234; J. A. N. S., (189) vol. iv, 1860, p. 351; Obs. Gen. Unio, (29) vol. ii, pp. 15, 76, 122, 127, 144, 146, pl. vi, f. 15; (44) vol. iii, p. 72; (205) vol. viii, p. 32.

Unio interventus.

P. A. N. S., (196) vol. xiii, 1861, p. 60; J. A. N. S., (203) vol. v, 1861, p. 84, pl. xi, f. 233; Obs. Gen. Unio, (205) vol. viii, p. 88, pl. xi, f. 233.

Unio invalidus.

P. A. N. S., (156) vol. xi, 1859, p. 171; J. A. N. S., (189) vol. iv, 1860, p. 333, pl. liii, f. 158; (203) vol. v, 1861, p. 93; (242) vol. vi, 1866, p. 14; Obs. Gen. Unio, (205) vol. viii, p. 15, 97 (also errata) pl. xv, f. 158; (244) vol. xi, p. 18.

Unio invenustus.

J. A. N. S., (274) vol. viii, 1874, p. 66, pl. xxii, f. 62; Obs. Gen. Unio, (275) vol. xiii, p. 70, pl. xxii, f. 62.

Unio iris.

T. A. P. S., (12) vol. iii, 1829, pp. 409, 411, 421, 439, pl. xi, f. 18; (20) vol. v, 1832, p. 37, 64; (27) vol. vi, 1836, pp. 25, 34, 41; 1838, pp. 105, 123, 146; (43) vol. viii, 1840, pp. 192, 202; (55) vol. x, 1845, p. 80; J. A. N. S., (189) vol. iv, 1860, pp. 350, 357; (221) vol. v, 1863, p. 419; Obs. Gen. Unio, (21) vol. i, pp. 23, 25, 35, 53, 149, 166, pl. xi, f. 18; (29) vol. ii, pp. 25, 34, 41, 105, 123, 146; (44) vol. iii, p. 30, 40; (56) vol. iv, p. 80; (205) vol. viii, pp. 32, 39; (222) vol. x, p. 55.

Unio irasus.

P. A. N. S., (192) vol. xiii, 1861, p. 38; J. A. N. S., (203) vol. v, 1861, p. 91, pl. xiii, f. 239; Obs. Gen. Unio, (205) vol. viii, p. 95, pl. xiii, f. 239.

Unio iteptus.

P. A. P. S., (93) vol. ii, 1852, p. 251.

Unio iornatus.

T. A. P. S., (9) vol. iii, 1827, p. 269, pl. v, f. 5; (12) vol. iii, 1829, pp. 70, 406, 407, 409, 411, 412, 414, 420; (27) vol. vi, 1836, p. 49, 51; 1838, pp. 123, 146; (43) vol. viii, 1841, p. 231; (55) vol. x, 1845, p. 75; (79) vol. x, 1852, p. 267; J. A. N. S., (147) vol. iv, 1858, p. 44; (213) vol. v, 1863, p. 266; (221) vol. v, 1863, pp. 401, 433; Obs. Gen. Unio, (21) vol. i, pp. 11, 20, 21, 23, 25, 26, 28, 34, 182, pl. v, f. 5; (29) vol. ii, pp. 49, 51, 123, 146; (44) vol. iii, p. 69; (56) vol. iv, p. 75; (83) vol. v, p. 23; (150) vol. vi, p. 44; (215) vol. ix, p. 28; (222) vol. x, pp. 37, 69.

Unio iowensis.

J. A. N. S., (273) vol. viii, 1874, p. 44, pl. xv, f. 42; Obs. Gen. Unio, (275) vol. xiii, p. 48, pl. xv, f. 42.

Unio iuxesinus.

P. A. N. S., (121) vol. ix, 1857, p. 84; J. A. N. S., (148) vol. iv, 1858, p. 52, pl. vi, f. 35; Obs. Gen. Unio, (150) vol. vi, p. 52, pl. vi, f. 35.

Unio Japonensis.

P. A. N. S., (152) vol. xi, 1859, p. 153; J. A. N. S., (168) vol. iv, 1859, p. 244, pl. xxxvi, f. 123; Obs. Gen. Unio, (170) vol. vii, p. 62, pl. xxxvi, f. 123.

Unio Javanus.

P. A. P. S., (35) vol. i, 1840, p. 285; T. A. P. S., (43) vol. viii, 1840, p. 220, pl. xviii, f. 37; J. A. N. S., (133) vol. iii, 1857, p. 294; (168) vol. iv, 1859, p. 239; Obs. Gen. Unio, (44) vol. iii, p. 58, pl. xviii, f. 37; (150) vol. vi, p. 14; (170) vol. vii, p. 57.

U. Jayensis.

T. A. P. S., (27) vol. vi, 1836, p. 28, pl. ix, f. 23, 1838, pp, 132, 146; Obs. Gen. Unio, (29) vol. ii, pp. 28, 132, 146, pl. ix, f. 23.

U. Jeffreysianus.

J. A. N. S., (273) vol. viii, 1874, p. 23, pl. vii, f. 20; Obs. Gen. Unio, (275) vol. xiii, p. 27, pl. vii, f. 20.

U. jejunus.

T. A. P. S., (27) vol. vi, 1834, p. 9, pl. iv, f. 9; 1838, pp. 130, 146; Obs. Gen. Unio, (29) vol. ii, pp. 9, 130, 146, pl. iv, f. 9.

U. Jewettii.

J. A. N. S., (257) vol. vi, 1868, p. 276, pl. xxxvii, f. 89; Obs. Gen. Unio, (259) vol. xii, p. 36, pl. xxxvii, f. 89.

U. Johannis.

P. A. N. S., (156) vol. xi, 1859, p. 171; J. A. N. S., (189) vol. iv, 1860, p. 343, pl. lv, f. 168; Obs. Gen. Unio, (205) vol. viii, p. 25, pl. lv, f. 168.

U. Jonesii.

P. A. N. S., (156) vol. xi, 1859, p. 171; J. A. N. S., (189) vol. iv, 1860, p. 339, pl. liv, f. 164; Obs. Gen. Unio, (205) vol. viii, p. 21, pl. liv, f. 164.

U. Jordanicus.

J. A. N. S., (242) vol. vi, 1866, p. 53; Obs. Gen. Unio, (244) vol. xi, p. 57.

U. Juliani.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. Katherinæ.

T. A. P. S., (27) vol. vi, 1838, pp. 143, 146; Obs. Gen. Unio, (29) vol. ii, pp. 143, 146.

U. Keinerianus.

P. A. P. S., (92) vol. v, 1852, p. 251; T. A. P. S., (79) vol. x, 1852, p. 281, pl. xxiii, f. 40; Obs. Gen. Unio, (83) vol. v, p. 37, pl. xxiii, f. 40.

U. Keraudreni.

J. A. N. S., (133) vol. iii, 1857, p. 311; Obs. Gen. Unio, (150) vol. vi, p. 31.

U. Kirkii.

J. A. N. S., (242) vol. vi, 1866, pp. 32, 34, pl. xii, f. 30; Obs. Gen. Unio, (244) vol. xi, pp. 36, 38, pl. xii, f. 30.

U. Kirtlandianus.

T. A. P. S., (20) vol. v, 1834, p. 98, pl. xiv, f. 41; (27) vol. vi, 1838, pp. 131, 146; Obs. Gen. Unio, (21) vol. i, p. 210, pl. xiv, f. 41; (29) vol. ii, pp. 131, 146.

U. Kleinianus.

P. A. P. S., (93) vol. v, 1852, p. 251; T. A. P. S., (79) vol. x, 1852, p. 265; J. A. N. S., (221) vol. v, 1863, pp. 404, 417, 418; Obs. Gen. Unio, (83) vol. v, p. 21, pl. xvii, f. 18; (222) vol. x, pp. 40, 53, 64.

Unio Kullethensis.

J. A. N. S., (257) vol. vi, 1868, p. 251, pl. xxix, f. 65; Obs. Gen. Unio, (259) vol. xii, p. 11, pl. xxix, f. 65.

U. Labacensis.

T. A. P. S., (27) vol. vi, 1838, p. 128; Obs. Gen. Unio, (29) vol. ii, p. 128.

U. lacrymosus.

T. A. P. S., (9) vol. iii, 1827, p. 272, pl. vi, f. 8; (12) vol. iii, 1829, pp. 407, 409, 410, 411, 413, 414, 420; (15) vol. iv, 1830, pp. 64, 72, 86; (27) vol. vi, 1838, pp. 123, 146; (43) vol. viii, 1841, p. 231; P. A. P. S., (66) vol. v, 1851, p. 192; P. A. N. S., (135) vol. x, 1858, p. 13; J. A. N. S., (148) vol. iv, 1858, p. 66; (189) vol. iv, 1860, p. 358; (221) vol. v, 1863, p. 431; Obs. Gen. Unio, (21) vol. i, pp. 14, 21, 23, 24, 25, 27, 28, 34, 74, 82, 96, pl. v, f. 8; (29) vol. ii, pp. 123, 146; (44) vol. iii, p. 69; (150) vol. vi, p. 66; (205) vol. viii, p. 40; (222) vol. x, p. 67.

U. lacteolus.

T. A. P. S., (20) vol. v, 1832, pp. 40, 61, 68, 90, pl. viii, f. 19; (27) vol. vi, 1838, p. 128; (43) vol. viii, 1840, p. 200; J. A. N. S., (133) vol. iii, 1857, p. 309; Obs. Gen. Unio, (21) vol. i, pp. 152, 173, 180, 202, pl. viii, f. 19; (29) vol. ii, p. 128; (44) vol. iii, p. 38; (150) vol. vi, p. 29.

U. lævigata.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. lævissimus.

T. A. P. S., (27) vol. vi, 1838, pp. 121, 146; (43) vol. viii, 1840, pp. 219, 231; P. A. N. S., (135) vol. x, 1858, pp. 13, 14; J. A. N. S., (147) vol. iv, 1858, pp. 45, 48, pl. v, f. 24; (221) vol. v, 1863, pp. 425, 434; (242) vol. vi, 1866, p. 35; Obs. Gen. Unio, (29) vol. ii, pp. 121, 146; (44) vol. iii, pp. 57, 69; (150) vol. vi, pp. 45, 48, pl. v, f. 24; (222) vol. x, pp. 61, 70; (244) vol. xi, p. 39.

U. Lamarckianus.

P. A. P. S., (93) vol. v, 1852, p. 251; T. A. P. S., (79) vol. x, 1852, p. 266, pl. xvii, f. 20; Obs. Gen. Unio, (83) vol. v, p. 22, pl. xvii, f. 20.

U. lamellatus.

T. A. P. S., (27) vol. vi, 1835, p. 19, pl. vi, f. 16; 1838, p. 128; J. A. N. S., (168) vol. iv, 1859, pp. 244, 273; (242) vol. vi, 1866, p. 23; Obs. Gen. Unio, (29) vol. ii, pp. 19, 128, pl. xix, f. 16; (170) vol. vii, pp. 62, 91; (244) vol. xi, p. 27.

U. lamobrachys.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio., (29) vol. ii, p. 144.

U. lanceolata.

T. A. P. S., (9) vol. iii, 1827, p. 266, pl. iii, f. 2; (12) vol. iii, 1829, pp. 406, 409, 413, 420; (20) vol. v, 1834, p. 97; (27) vol. vi, 1838, pp. 132, 146; (43) vol. viii, 1840, p. 197; J. A. N. S., (203) vol. v, 1861, pp. 55, 60; (242) vol. vi, 1866, p. 11; Obs. Gen. Unio, (21) vol. i, pp. 8, 20, 23, 27, 34, 209, pl. iii, f. 2; (29) vol. ii, pp. 132, 146; (205) vol. viii, pp. 59, 64; (244) vol. xi, p. 15.

Unio Laosensis.

J. A. N. S., (242) vol. vi, 1866, Obs. Gen. Unio, (244) v f. 61.

U. lapillus.

T. A. P. S., (27) vol. vi, 1838 N. S., (221) vol. v, 1863, Unio, (29) vol. ii, pp. 128 p. 59.

U. latecostatus.

T. A. P. S., (55) vol. x, 184 Obs. Gen. Unio, (56) vol.

U. lateralis.

T. A. P. S., (27) vol. vi, 1838 Gen. Unio, (29) vol. ii, p

U. latissima.

T. A. P. S., (27) vol. vi, 1838 Unio, (29) vol. ii, p. 144.

U. latus.

T. A. P. S., (27) vol. vi, 183 S., (156) vol. xi, 1859, p. (189) vol. iv, 1860, p. 3 Obs. Gen. Unio, (29) vo vol. viii, p. 16, pl. liii, f.

U. Lawii.

J. A. N. S., (273) vol. viii, 1 Obs. Gen. Unio, (275) ve f. 4.

U. Layardii.

P. A. N. S., (152) vol. xi, 1 N. S., (168) vol. iv, 185 xxxvi, f. 122; Obs. Gen vii, pp. 61, 91, pl. xxxvi,

U. Lazarus.

P. A. P. S., (93) vol. v, 1852 S., (79) vol. x, 1852, p. Obs. Gen. Unio, (83) vol f. 9.

U. Leaii.

T. A. P. S., (20) vol. v, 183 vi, 1838, pp. 124, 145; Ob vol. ii, pp. 124, 145.

U. Lecontianus.

T. A. P. S., (27) vol. vi, 183 35, 1838, pp. 126, 147; (7 268; J. A. N. S., (148) v (159) vol. iv, 1859, pp. 2 vol. v, 1861, p. 80; Obs. vol. ii, pp. 40, 126, 147, vol. v, p. 24; (150) vol. v vii, pp. 27, 29, 35; (205) v

U. ligamentinus.

J. A. N. S., (148) vol. iv, 185 Unio, (150) vol. vi, p. 78.

U. Leibii.

J. A. N. S., (242) vol. vi, 1 f. 42; Obs. Gen. Unio, (pl. xv, f. 42.

U. lenior (same as *lenis*).

T. A. P. S., (43) vol. viii, 18 f. 18; Obs. Gen. Unio, (pl. xii, f. 18.

U. lenis (same as *lenior*).

P. A. P. S., (35) vol. i, 1840,

Lens.

T. A. P. S., (15) vol. iv, 1830, p. 80, pl. viii, f. 10; (27) vol. vi, 1838, pp 130, 147; (55) vol. x, 1845, p. 74; J. A. N. S., (221) vol. v, 1863, p. 428; Obs. Gen. Unio, (21) vol. i, p. 90, pl. viii, f. 10; (29) vol. ii, pp. 130, 147; (56) vol. iv, p. 74; (222) vol. x, p. 64.

Lenticularis.

J. A. N. S., (273) vol. viii, 1874, p. 30, pl. ix, f. 27; Obs. Gen. Unio, (275) vol. xiii, p. 34, pl. ix, f. 27.

Lepidus.

P. A. N. S., (176) vol. xii, 1860, p. 91; J. A. N. S., (220) vol. v, 1863, pp. 380, 389, pl. l, f. 306; Obs. Gen. Unio, (222) vol. x, pp. 16, 25, pl. il, f. 306.

Leptodon.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

Lesleyi.

P. A. N. S., (185) vol. xii, 1860, p. 306; J. A. N. S., (189) vol. iv, 1860, p. 352, pl. lviii, f. 177; Obs. Gen. Unio, (205) vol. viii, p. 34, pl. lviii, f. 177.

Leuxurianus.

P. A. P. S., (35) vol. i, 1840, p. 286; T. A. P. S., (43) vol. viii, 1840, p. 195, pl. viii, f. 6; Obs. Gen. Unio, (44) vol. iii, p. 33, pl. viii, f. 6.

Levisti.

P. A. N. S., (192) vol. xiii, 1861, p. 40; J. A. N. S., (203) vol. v, 1861, p. 71, pl. viii, f. 220; (258) vol. vi, 1868, p. 327; Obs. Gen. Unio, (205) vol. viii, p. 75, pl. viii, f. 220; (259) vol. xii, p. 87.

Lineatus.

T. A. P. S., (27) vol. vi, 1838, pp. 128, 147; Obs. Gen. Unio, (29) vol. ii, pp. 128, 147.

Lineolata.

T. A. P. S., (12) vol. iii, 1829, p. 422; (20) vol. v, 1833, p. 88; (27) vol. vi, 1838, p. 127; (79) vol. x, 1852, p. 276; J. A. N. S., (147) vol. iv, 1858, p. 47, pl. v, f. 18; (148) vol. iv, 1858, p. 82; (159) vol. iv, 1859, p. 193; (189) vol. iv, 1860, p. 369; (203) vol. v, 1861, p. 62; (213) vol. v, 1862, p. 189; (221) vol. v, 1863, p. 244; Obs. Gen. Unio, (21) vol. i, pp. 36, 200; (29) vol. ii, p. 127; (83) vol. v, p. 32; (150) vol. vi, pp. 47, 82, pl. v, f. 18; (170); vol vii, p. 11; (205) vol. viii, pp. 51, 66; (215) vol. ix, p. 11; (222) vol. x, p. 60.

Ligatus.

J. A. N. S., (273) vol. viii, 1874, p. 49, pl. xvii, f. 47; Obs. Gen. Unio, (275) vol. xiii, p. 53, pl. xvii, f. 47.

Limagnæ.

T. A. P. S., (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (29) vol. ii, p. 132.

Limatulus.

J. A. N. S., (221) vol. v, 1863, p. 407; Obs. Gen. Unio, (222) vol. x, p. 43.

Limula.

T. A. P. S., (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (29) vol. ii, p. 132.

U. Limoriensis.

T. A. P. S., (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (29) vol. ii, p. 132.

Unio Lincecumii.

J. A. N. S., (258) vol. vi, 1868, p. 312, pl. xlix, f. 125; Obs. Gen. Unio, (259) vol. xii, p. 72, pl. xlix, f. 125.

U. Lindsleyi.

P. A. N. S., (185) vol. xii, 1860, p. 306; J. A. N. S., (189) vol. iv, 1860, p. 351, pl. lviii, f. 176; Obs. Gen. Unio, (205) vol. viii, p. 33, pl. lviii, f. 176.

U. lineatus.

P. A. P. S., (35) vol. i, 1840, p. 287; T. A. P. S., (43) vol. viii, 1840, p. 206, pl. xii, f. 20; J. A. N. S., (221) vol. v, 1863, pp. 407, 414; Obs. Gen. Unio, (44) vol. iii, p. 44, pl. xii, f. 20; (222) vol. x, pp. 43, 50.

U. lineolata.

T. A. P. S., (27) vol. vi, 1838, pp. 124, 144; Obs. Gen. Unio, (29) vol. ii, pp. 124, 144.

U. linguæformis.

P. A. N. S., (183) vol. xii, 1860, p. 305; J. A. N. S., (189) vol. iv, 1860, p. 345, pl. lvi, f. 170; Obs. Gen. Unio, (205) vol. viii, p. 27, pl. lvi, f. 170.

U. Listeri.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. littoralis.

T. A. P. S., (12) vol. iii, 1829, p. 423; (20) vol. v, 1833, pp. 88, 90; (27) vol. vi, 1838, pp. 130, 137, 145; Obs. Gen. Unio, (21) vol. i, pp. 37, 200, 201, 202; (29) vol. ii, pp. 130, 137, 145.

U. litus.

J. A. N. S., (273) vol. viii, 1874, p. 17, pl. v, f. 13; Obs. Gen. Unio, (275) vol. xiii, p. 21, pl. v, f. 13.

U. lividus.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. Livingstonensis

J. A. N. S., (242) vol. vi, 1866, p. 14, pl. iv, f. 11; Obs. Gen. Unio, (244) vol. xi, p. 18, pl. iv, f. 11.

U. locellus.

J. A. N. S., (257) vol. vi, 1858, p. 264, pl. xxxiii, f. 79; Obs. Gen. Unio, (259) vol. xii, p. 24, pl. xxx, f. 79.

U. longirostris.

T. A. P. S., (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (29) vol. ii, p. 132.

U. lucidus.

J. A. N. S., (242) vol. vi, 1866, p. 9, pl. ii, f. 6; Obs. Gen. Unio, (244), vol. xi, p. 13, pl. ii, f. 6.

U. lugubris.

T. A. P. S., (20) vol. v, 1833, p. 88; (27) vol. vi, 1836, p. 30, pl. ix, f. 25; (27) vol. vi, 1838, pp. 132, 133, 147; J. A. N. S., (159) vol. iv, 1859, p. 212; (220) vol. v, 1863, p. 380; (221) vol. v, 1863, p. 414; Obs. Gen. Unio, (21) vol. i, p. 200; (29) vol. ii, pp. 30, 132, 133, 147, pl. ix, f. 25; (170) vol. vii, p. 30; (222) vol. x, pp. 16, 50.

U. luridus.

P. A. P. S., (93) vol. v, 1852, p. 251; T. A. P. S., (79) vol. x, 1852, p. 273, pl. xx, f. 29; J. A. N. S., (148) vol. iv, 1858, p. 54; Obs. Gen. Unio, (83) vol. v, p. 29, pl. xx, f. 29.

Unio lutens (same as *U. luteus*).

P. A. N. S., (110) vol. viii, 1856, p. 93.

U. luteolus.

T. A. P. S., (12) vol. iii, 1829, pp. 417, 425; (20) vol. v, 1833, p. 91; (27) vol. vi, 1834, p. 15; 1836, pp. 34, 49, 56; 1838, pp. 106, 126, 127, 147; (43) vol. viii, 1841, p. 231; (55) vol. x, 1845, p. 79; (79) vol. x, 1852, pp. 271, 273; P. A. N. S., (135) vol. x, 1858, p. 13; J. A. N. S., (147) vol. iv, 1858, p. 47, pl. v, f. 10; (213) vol. v, 1861, p. 215; (220) vol. v, 1863, p. 382; (221) vol. v, 1863, pp. 402, 414; (242) vol. vi, 1866, p. 27; Obs. Gen. Unio, (21) vol. i, pp. 31, 39, 203; (29) vol. ii, pp. 15, 34, 49, 56, 106, 126, 127, 147; (44) vol. iii, p. 69; (56) vol. iv, p. 79; (83) vol. v, pp. 27, 29; (150) vol. vi, p. 47, pl. v, f. 10; (215) vol. ix, p. 37; (222) vol. x, pp. 18, 38, 50; (244) vol. xi, p. 31.

U. luteus. (see *U. lutens*),

J. A. N. S., (133) vol. iii, 1857, p. 291, pl. xxiv, f. 4; Obs. Gen. Unio, (150) vol. vi, p. 11, pl. xxiv, f. 4.

U. Lagonii.

P. A. N. S., (235) vol. xvii, 1865, p. 89; J. A. N. S., (257) vol. vi, 1868, p. 259, pl. xxxii, f. 74; Obs. Gen. Unio, (259) vol. vii, p. 19, pl. xxxii, f. 74.

U. macer.

P. A. N. S., (123) vol. ix, 1857, p. 86; J. A. N. S., (213) vol. v, 1862, p. 202, pl. xxix, f. 271; Obs. Gen. Unio, (215) vol. ix, p. 24, pl. xxix, f. 271.

U. Macnielii.

J. A. N. S., (273) vol. viii, 1874, p. 250, pl. viii, f. 22; Obs. Gen. Unio, (275) vol. xiii, p. 29, pl. viii, f. 22.

U. Maconensis.

P. A. N. S., (129) vol. ix, 1857, p. 172; J. A. N. S., (148) vol. iv, 1858, pp. 93, 95, pl. xx, f. 73; Obs. Gen. Unio, (150) vol. vi, pp. 93, 95, pl. xx, f. 73.

U. macrodon.

P. A. N. S., (154) vol. xi, 1859, p. 154; J. A. N. S., (213) vol. v, 1862, p. 193, pl. xxvi, f. 262; Obs. Gen. Unio, (215) vol. ix, p. 15, pl. xxvi, f. 262.

U. maculatus.

T. A. P. S., (27) vol. vi, 1838, pp. 131, 147; (43) vol. viii, 1840, p. 210; Obs. Gen. Unio, (29) vol. ii, pp. 131, 147; (44) vol. iii, p. 48.

U. maestus.

P. A. P. S., (40) vol. ii, 1841, p. 82; T. A. P. S., (43) vol. viii, 1841, p. 244, pl. xxvi, f. 60; Obs. Gen. Unio, (44) vol. iii, p. 82, pl. xxvi, f. 60.

U. manca.

T. A. P. S., (12) vol. iii, 1829, p. 425; (20) vol. v, 1833, p. 91; (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (21) vol. i, pp. 39, 203; (29) vol. ii, p. 32.

U. manubius.

J. A. N. S., (148) vol. iv, 1858, p. 53; Obs. Gen. Unio, (150) vol. vi, p. 53.

U. Mardinensis.

J. A. N. S., (257) vol. vi, 1868, p. 252, pl. xxx, f. 66; Obs. Gen. Unio, (259) vol. xii, p. 12, pl. xxx, f. 66.

Unio marginalis.

T. A. P. S., (12) vol. iii, 1829, p. 425; (20) v[illegible] v, 1832, p. 41; 1833, pp. 66, 92; 1834, p. [illegible]; (27) vol. vi, 1838, pp. 132, 145; J. A. N. [illegible] (168) vol. iv, 1859, p. 244; Obs. Gen. U[illegible] (21) vol. i, pp. 39, 153, 178, 204, 209; [illegible] vol. ii, pp. 132, 145; (170) vol. vii, p. 62.

U. marginis.

P. A. N. S., (235) vol. xvii, 1865, p. 89; J. [illegible] N. S., (257) vol. vi, 1868, p. 255, pl. x[illegible] f. 69; Obs. Gen. Unio, (259) vol. xii, p. [illegible] pl. xxxi, f. 69.

U. margaritacea.

T. A. P. S., (27) vol. vi, 1838, p. 134; Obs. G[illegible] Unio, (29) vol. ii, p. 134.

U. margaritifera.

T. A. P. S., (12) vol. iii, 1829, p. 423; (20) [illegible] v, 1833, p. 88; (27) vol. vi, 1838, p. 136; [illegible] Gen. Unio, (21) vol. i, pp. 37, 200; (29) [illegible] ii, p. 136.

U. Masoni.

T. A. P. S., (27) vol. vi, 1838, pp. 131, 1[illegible] Obs. Gen. Unio, (29) vol. ii, pp. 131, 14[illegible]

U. Mauritianus.

P. A. N. S., (152) vol. xi, 1859, p. 152; J. A[illegible] S., (168) vol. iv, 1859, pp. 249, 257, pl. x[illegible] 138; Obs. Gen. Unio, (170) vol. vii, pp. 75, pl. xl, f. 138.

Ue Mecklenbergensis.

J. A. N. S., (242) vol. vi, 1866, pp. 12, 17, pl. [illegible] f. 15; Obs. Gen. Unio, (244) vol. xi, pp. 21, pl. v, f. 15.

U. Medellinus.

T. A. P. S., (27) vol. vi, 1836, p. 39, pl. xii [illegible] 34; 1838, pp. 127, 147; (43) vol. viii, 18[illegible] p. 201; Obs. Gen. Unio, (29) vol. ii, pp. [illegible] 127, 147, pl. xii, f. 34; (44) vol. iii, p. 39.

U. mediocris.

J. A. N. S., (242) vol. vi, 1866, p. 24, pl. vii [illegible] 22; Obs. Gen. Unio, (244) vol. xi, p. 28, [illegible] vii, f. 22.

U. medius.

P. A. N. S., (192) vol. xiii, 1861, p. 40; J. [illegible] N. S., (203) vol. v, 1861, pp. 78, 83, 92, pl. [illegible] f. 227; Obs. Gen. Unio, (205) vol. viii, p. [illegible] 82, 87, 96, pl. x, f. 227.

U. megaptera.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. G[illegible] Unio, (29) vol. ii, p. 144.

U. melaplata.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. G[illegible] Unio, (29) vol. ii, p. 144.

U. melleus.

P. A. N. S., (152) vol. xi, 1859, p. 152; J. A[illegible] S., (168) vol. iv, 1859, pp. 250, 253, pl. xxx[illegible] f. 129; Obs. Gen. Unio, (170) vol. vii, pp. [illegible] 71, pl. xxxviii, f. 129.

U. membranaceus.

T. A. P. S., (27) vol. vi, 1838, pp. 148, 154; J. [illegible] N. S., (133) vol. iii, 1857, p. 309; Obs. G[illegible] Unio, (29) vol. ii, p. 148; (150) vol. vi, p. [illegible]

U. Menkianus.

T. A. P. S., (27) vol. vi, 1836, p. 76, pl. xix, [illegible] 39; 1838, pp. 127, 147; J. A. N. S., (189) vol. [illegible] iv, 1860, p. 351; Obs. Gen. Unio, (29) vol. [illegible] pp. 76, 127, 147, pl. xix, f. 39; (205) vol. viii, [illegible]

io Mercerii.

J. A. N. S., (213) vol. v, 1862, p. 209, pl. xxxi, f. 278; Obs. Gen. Unio, (215) vol. ix, p. 31, pl. xxxi, f. 278.

Meredithii.

P. A. N. S., (136) vol. x, 1858, p. 40; J. A. N. S., (189) vol. iv, 1860, p. 347; (203) vol. v, 1861, p. 65, pl. vi, f. 214; Obs. Gen. Unio, (205) vol. viii, pp. 29, 69, pl. vi, f. 214.

merus.

P. A. P. S., (93) vol. v, 1852, p. 251; T. A. P. S., (79) vol. x, 1852, p. 260, pl. xv, f. 10; J. A. N. S., (168) vol. iv, 1859, p. 254; (189) vol. iv, 1860, p. 349; Obs. Gen. Unio, (83) vol. v, p. 16, pl. xv, f. 10; (170) vol. vii, p. 72; (205) vol. viii, p. 31.

metanever.

T. A. P. S., (9) vol. iii, 1827, p. 273; (12) vol. iii, 1829, pp. 409, 410, 412, 418; (15) vol. iv, 1830, pp. 64, 72; 1831, p. 106; (27) vol. vi, 1838, pp. 123, 147; (43) vol. viii, 1840, pp. 211, 231, 243; (79) vol. x, 1852, pp. 267, 277; J. A. N. S., (148) vol. iv, 1858, p. 66; (213) vol. v, 1862, p. 188; (242) vol. vi, 1866, p. 27; Obs. Gen Unio, (21) vol. i, pp. 15, 23, 24, 26, 32, 74, 82, 116; (29) vol. ii, pp. 123, 147; (44) vol. iii, pp. 49, 69, 81; (83) vol. v, pp. 23, 33; (150) vol. vi, p. 66; (215) vol. ix, p. 10; (244) vol. xi, p. 31.

metanevrus.

J. A. N. S., (221) vol. v, 1863, p. 430; Obs. Gen. Unio, (222) vol. x, p. 66.

metallicus.

T. A. P. S., (27) vol. vi, 1838, p. 133; Obs. Gen. Unio, (29) vol. ii, p. 133.

Mexicanus.

J. A. N. S., (168) vol. iv, 1859, p. 264; Obs. Gen. Unio, (170) vol. vii, p. 72

micans.

P. A. N. S., (123) vol. ix, 1857, p. 85; J. A. N. S., (203) vol. v, 1861, p. 59, pl. iii, f. 207; (242) vol. vi, 1866, p. 19; Obs. Gen. Unio, (205) vol. viii, p. 63, pl. iii, f. 207; (244) vol. xi, p. 23.

Michaudiana.

T. A. P. S., (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (29) vol. ii, p. 132.

minor.

T. A. P. S., (54) vol. ix, 1843, pp. 276, 278, pl. xxxix, f. 3; Obs. Gen. Unio, (56) vol. x, pp. 276, 278, pl. xxxix, f. 3.

Mississippiensis.

J. A. N. S., (213) vol. 5, 1862, p. 200; (220) vol v, 1863, p. 378; Obs. Gen. Unio, (215) vol. ix, p. 23; (222) vol. x, p. 14.

modestus.

T. A. P. S., (27) vol. vi, 1836, p. 23; 1838, pp. 130, 148; J. A. N. S., (189) vol. iv, 1860, p. 345; (242) vol. vi, 1866, p. 29; Obs. Gen. Unio, (29) vol. ii, pp. 23, 130, 148; (205) vol. viii, p. 27; (244) vol. xi, p. 24.

modicellus.

P. A. N. S., (156) vol. xi, 1859, p. 171; J. A. N. S., (189) vol. iv, 1860, p. 347, pl. lvii, f. 172; (203) vol. v, 1861, p. 79; (213) vol. v, 1862, p. 207; Obs. Gen. Unio, (205) vol. viii, p. 29, pl. lvii, f. 172; (205) vol. viii, p. 83; (215) vol. ix, p. 29.

Unio modicus.

P. A. N. S., (129) vol. ix, 1857, p. 171; J. A. N S., (159) vol. iv, 1859, p. 201, pl. xxiv, f. 86; Obs. Gen. Unio, (170) vol. vii, p. 22, pl. xxiv, f. 86.

U. modioliformis.

T. A. P. S., (20) vol. v, 1833, p. 89; 1834, p. 97, pl. xiii, f. 40; (27) vol. vi, 1836, p. 63; 1838, pp. 119, 133; (54) vol. ix, 1843, p. 275; (79) vol. x, 1852, pp. 270, 274; J. A. N. S., (148) vol. iv, 1858, p. 60; Obs. Gen. Unio, (21) vol. i, pp. 201, 209, pl. xiii, f. 40; (29) vol. ii, pp. 63, 119, 126, 133, 147; (56) vol. iv, p. 275; (83) vol. v, pp. 26, 30; (150) vol. vi, p. 60.

U. monodontus.

T. A. P. S., (27) vol. vi, 1838, pp. 128, 134, 147; (43) vol. viii, 1840, pp. 193, 231; J. A. N. S., (159) vol. iv, 1859, p. 225; (221) vol. v, 1863, p. 422; Obs. Gen. Unio, (29) vol. ii, pp. 128, 134, 147; (44) vol. iii, p. 31; (44) vol. iii, p. 69; (170) vol. vii, p. 43; (222) vol. x, p. 58.

U. Monroensis.

T. A. P. S., (54) vol. ix, 1843, p. 279, pl. xli, f. 8; Obs. Gen. Unio, (56) vol. iv, p. 279, pl. xli, f. 8.

U. montanus.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. Mooresianus.

P. A. N. S., (120) vol. ix, 1857, p. 83; J. A. N. S., (242) vol. vi, 1866, p. 39, pl. xiv, f. 37; Obs. Gen. Unio, (244) vol. xi, p, 43, pl. xiv, f. 37.

U. Mortoni.

T. A. P. S., (27) vol. vi, 1838, p. 123; Obs. Gen. Unio, (29) vol. ii, p. 123.

U. Mosulensis.

J. A. N. S., (242) vol. vi, 1866, pp. 51, 52, pl. xvii, f. 49; Obs. Gen. Unio, (244) vol. xi, pp. 55, 56, pl. xvii, f. 49.

U. Moussonianus.

P. A. P. S., (93) vol. v, 1852, p. 251; T. A. P. S., (79) vol. x, 1852, p. 268; Obs. Gen. Unio, (83) vol. v, p. 24, pl. xviii, f. 22.

U. mucronatus.

T. A. P. S., (12) vol. iii, 1829, p. 419; (27) vol. vi, 1838, p. 133; Obs. Gen. Unio, (21) vol. i, p. 31; (29) vol. ii, p. 133.

U. Mühlfeldianus.

T. A. P. S., (27) vol. vi, 1836, pp. 32, 41, pl. xii, f. 36; 1838, pp. 128, 147; Obs. Gen. Unio, (29) vol. ii, pp. 32, 41, 128, 147, pl. xii, f. 36.

U. multiplicatus.

T. A. P. S., (15) vol. iv, 1830, pp. 65, 70; 1831, p. 106, pl. iv, f. 2; (20) vol. v, 1832, p. 29; (27) vol vi, 1836, p. 56; 1838, pp. 122, 147; (43) vol. viii, 1841, p. 231; P. A. P. S., (66) vol. v, 1851, p. 192; P. A. N. S., (139) vol. x, 1858, p. 114; (141) vol. x, 1858, p. 135; J. A. N. S., (147) vol. iv, 1858, p. 46, pl. v, f. 3; (159) vol. iv, 1859, pp. 191, 222, pl. xxx, f. 105; (221) vol. v, 1863, pp. 417, 428; Obs. Gen. Unio; (21) vol. i, pp. 75, 80, 116, 141, pl. iv, f. 2; (29) vol. ii, pp. 56, 122, 146, 147; (44) vol. iii, p. 69; (150) vol. vi, p. 46, pl. v, f. 3; (170) vol. vii, pp. 9, 40, pl. xxx, f. 105; (222) vol. x, pp. 53, 64.

Unio multiradiatus.

T. A. P. S., (12) vol. iii, 1829, pp. 409, 411, 420, 434, pl. ix, f. 15; (27) vol. vi, 1838, pp. 127, 147; (43) vol. viii, 1841, p. 231; J. A. N. S., (147) vol. iv, 1858, p. 47, pl. v, f. 17; (189) vol. iv, 1860, p. 368; (203) vol. v, 1861, pp. 66, 76; (213) vol. v, 1862, p. 209; (221) vol. v, 1863, pp. 409, 426, 431; Obs. Gen. Unio, (21) vol. i, pp. 23, 25, 34, 48, pl. ix, f. 15; (29) vol. ii, pp. 127, 147; (44) vol. iii, p. 69; (150) vol. vi, p. 47, pl. v, f. 17; (205) vol. viii, pp. 50, 70, 80; (215) vol. ix, p. 31; (222) vol. x, pp. 45, 62, 67.

U. multistriatus.

T. A. P. S., (15) vol. iv, 1830, p. 91, pl. xii, f. 22; (27) vol. vi., 1838, pp. 122, 148; (55) vol. x, 1845, p. 68; Obs. Gen. Unio, (21) vol. i, p. 101, pl. xii, f. 22; (29) vol. ii, pp. 122, 148; (56) vol. iv, p. 78.

U. mundus.

P. A. N. S., (120) vol. ix, 1857, p. 83; J. A. N. S., (242) vol. vi, 1866, p. 40, pl. xiv, f. 38; Obs. Gen. Unio, (244) vol. xi, p. 44, pl. xiv, f. 38.

U. Murchisonianus.

T. A. P. S., (20) vol. v, 1832, p. 33, pl. iii, f. 6; (27) vol. vi, 1838, p. 122; J. A. N. S., (133) vol. iii, 1857, p. 294; (168) vol. iv, 1859, p. 243; Obs. Gen. Unio, (21) vol. i, p. 145, pl. iii, f. 6; (29) vol. ii, p. 122; (150) vol. vi, p. 14; (170) vol. vii, p. 61.

U. Murrayensis.

J. A. N. S., (258) vol. vi, 1868, p. 303, pl. xlvi, f. 115; Obs. Gen. Unio, (259) vol. xii, p. 62, pl. xlvi, f. 115.

U. musivus.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. mutabilis.

P. A. N. S., (152) vol. xi, 1859, p. 152; J. A. N. S., (168) vol. iv, 1859, p. 248, pl. xxxviii, f. 127; Obs. Gen. Unio, (170) vol. vii, p. 66, pl. xxxviii, f. 127.

U. Myersianus.

P. A. N. S., (110) vol. viii, 1856, p. 92; J. A. N. S., (133) vol. iii, 1857, p. 290, pl. xxii, f. 2; (242) vol. vi, 1866, p. 63; Obs. Gen. Unio, (150) vol. vi, p. 10, pl. xxii, f. 2; (244) vol. xi, p. 67.

U. mytiloides.

T. A. P. S., (9) vol. iii, 1827, p. 269; (12) vol. iii, 1829, pp. 409, 412, 418; (15) vol. iv, 1830, p. 85; 1831, pp. 110, 111; (27) vol. vi, 1838, pp. 125, 131, 147; Obs. Gen. Unio, (21) vol. i, pp. 11, 23, 26, 32, 95, 120, 121; (29) vol. ii, pp. 125, 131, 147.

U. Nagpoorensis.

P. A. N. S., (165) vol. xi, 1859, p. 331; J. A. N. S., (168) vol. iv, 1859, p. 270, pl. xlv, f. 150; Obs. Gen. Unio, (170) vol. vii, p. 88, pl. xlv, f. 150.

U. nana.

T. A. P. S., (12) vol. iii, 1829, p. 424, (20) vol. v, 1833, p. 90, (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (21) vol. i, pp. 38, 202, (29) vol. ii, p. 130.

U. Napeanensis.

J. A. N. S., (242) vol. vi, 1866, p. 49; Obs. Gen. Unio, (244) vol. xi, p. 53.

Unio Nashvillianus.

T. A. P. S., (20) vol. v, 1834, p. (27) vol. vi, 1834, p. 7; 1836, p 147; (55) vol. x, 1845, p. 80; p. 269; J. A. N. S., (148) vo (203) vol. v, 1861, p. 67; (2 200; (221) vol. v, 1863, p. 4 1874, p. 68, pl. xxi, f. 1; Ob vol. i, p. 212, pl. xiv, f. 43; 36, 128, 147; (56) vol. iv, p. 25; (150) vol. vi, p. 80; (205 (215) vol. ix, p. 22; (222) v vol. xiii, p. 72, pl. xxi, f. 1.

U. nasutus.

T. A. P. S., (12) vol. iii, 1829, 417, 418, 423; (15) vol. iv, vol. v, 1832, pp. 25, 60; 183 vi, 1834, pp. 5, 8; 1836, pp. pp. 132, 133, 147; (55) vol. x, vol. x, 1852, pp. 257, 278; vol. iv, 1858, p. 92; (189) vo (203) vol. v, 1861, p. 57; (221 403, 409, 445, 456; (242) vol. iii, f. 9; (274) vol. viii, 1874, Obs. Gen. Unio, (21) vol. i, 32, 37, 125, 137, 172, 201; (2 29, 53, 54, 132, 133, 147; (56) vol. v, pp. 13, 34; (150) vol. v viii, pp. 39, 61; (222) vol. x, (244) vol. xi, p. 16, pl. iii, f. 9 p. 72, pl. xxi, f. 2.

U. Natalensis.

J. A. N. S., (242) vol. vi, 1866, p. Obs. Gen. Unio, (244) vol. x 57.

U. naviculoides.

P. A. N. S., (129) vol. ix, 1857, p. (148) vol. iv, 1858, p. 94, pl. xx iv, 1859, pp. 212, 216; (242) vo Obs. Gen. Unio., (150) vol. v 74; (170) vol. vii, pp. 30, 34 20.

U. naviformis.

T. A. P. S., (12) vol. iii, 1829, pp. 4 v, 1833, p. 89; (27) vol. vi, 18 Gen. Unio, (21) vol. i, pp. 31, ii, p. 124.

U. navigioliformis.

P. A. N. S., (152) vol. xi, 1859, p. (168) vol. iv, 1859, p. 248, pl Obs. Gen. Unio, (170) vol. xxxvii, f. 124.

U. nebulosus.

T. A. P. S., (27) vol. vi, 1838, p. Unio, (29) vol. ii, p. 133.

U. negatus.

P. A. N. S. (196) vol. xiii, 1861, S. (203) vol. v, 1861, p. 76, pl. Gen. Unio, (205) vol. viii, p.

U. neglectus.

T. A. P. S., (54) vol. ix, 1843, p. 10; Obs. Gen. Unio, (56) vol xlii, f. 10.

U. Neislerii.

P. A. N. S. (143) vol. x, 1858, p. 1 (159) vol. iv, 1859, p. 212, pl. x Gen. Unio, (170) vol. vii, p. 2

nio nervosus.

T. A. P. S. (27) vol. vi, 1838, pp. 124, 144; Obs. Gen. Unio, (29) vol. ii, pp. 124, 144.

Neamensis.

P. A. N. S., (136) vol. x, 1858, p. 41; J. A. N. S., (159) vol. iv, 1859, p. 206; (189) vol. iv, 1860, p. 331; (203) vol. v, 1861, p. 60, pl. iv, f. 208; Obs. Gen. Unio, (170) vol. vii, p. 24; (205) vol. viii, pp. 13, 64, pl. iv, f. 208.

Newcombianus.

P. A. N. S., (112) vol. viii, 1856, p. 103; J. A. N. S., (133) vol. iii, 1857, p. 312, pl. xxx, f. 27; Obs. Gen. Unio, (150) vol. vi, p. 32, pl. xxx, f. 27.

nexus.

T. A. P. S. (27) vol. vi, 1838, p. 124; Obs. Gen. Unio, (29) vol. ii, p. 124.

Nicaraguensis.

J. A. N. S. (257) vol. vi, 1868, p. 296, pl. xliii, f. 107; Obs. Gen. Unio, (259) vol. xii, p. 56, pl. xliii, f. 107.

Nicklinianus.

T. A. P. S., (20) vol. v, 1832, p. 28, pl. i, f. 1; (27) vol. vi, 1838, pp. 122, 148; (43) vol. viii, 1840, p. 208; J. A. N. S., (133) vol. iii, 1857, p. 295; (189) vol. iv, 1860, p. 368; Obs. Gen. Unio, (21) vol. i, p. 140, pl. l, f. 1; (29) vol. ii, pp. 122, 148; (44) vol. iii, p. 46; (150) vol. vi, p. 15; (205) vol. viii, p. 50.

nigellus.

P. A. P. S., (93) vol. v, 1852, p. 251; T. A. P. S., (79) vol. x, 1852, p. 283, pl. xxiv, f. 42; J. A. N. S., (159) vol. iv, 1859, pp. 196, 201; (221) vol. v, 1863, p. 409; Obs. Gen. Unio, (83) vol. v, p. 39, pl. xxiv, f. 42; (170) vol. vii, pp. 14, 19; (222) vol. x, p. 45.

niger.

T. A. P. S., (27) vol. vi, 1838, p. 125; Obs. Gen. Unio, (29) vol. ii, p. 125.

nigerrimus.

P. A. P. S., (93) vol. v, 1852, p. 251; T. A. P. S., (79) vol. x, 1852, p. 268, pl. xviii, f. 23; Obs. Gen. Unio, (83) vol. v, p. 24, pl. xviii, f. 23.

nigrinus.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 284, pl. xxiv, f. 44; Obs. Gen. Unio, (83) vol. v, p. 40, pl. xxiv, f. 44.

Niloticus.

T. A. P. S., (27) vol. vi, 1838, pp. 129, 145; Obs. Gen. Unio, (29) vol. ii, pp. 129, 145.

nitens.

P. A. P. S., (35) vol. i, 1840, p. 288; T. A. P. S., (43) vol. viii, 1840, p. 205, pl. xii, f. 19; J. A. N. S., (148) vol. iv, 1858, p. 83; (203) vol. v, 1861, p. 91; (221) vol. v, 1863, p. 406; Obs. Gen. Unio, (44) vol. iii, p. 43, pl. xii, f. 19; (150) vol. vi, p. 83; (205) vol. viii, p. 95; (222) vol. x, p. 42.

nitidens.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

nocturnus.

P. A. N. S., (176) vol. xii, 1860, p. 91; J. A. N. S., (220) vol. v, 1863, p. 380, pl. xlii, f. 288; Obs. Gen. Unio, (232) vol. x, p. 16, pl. xliv, f. 288.

Unio nodosus.

T. A. P. S., (12) vol. iii, 1829, p. 418; (27) vol. vi, 1838, p. 123; Obs. Gen. Unio, (21) vol. i, p. 32; (29) vol. ii, p. 123.

U. nodulata.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. nodulosus.

T. A. P. S., (12) vol. iii, 1829, p. 424; (20) vol. v, 1833, p. 91; (27) vol. vi, 1838, pp. 123, 132; Obs. Gen. Unio, (21) vol. i, pp. 38, 203; (29) vol. ii, pp. 123, 132.

U. Northamptonensis.

P. A. N. S., (200) vol. xiii, 1861, p. 392; J. A. N. S., (213) vol. v, 1862, p. 190, pl. xxv, f. 260; Obs. Gen. Unio, (215) vol. ix, p. 12, pl. xxv, f. 260.

U. notatus.

T. A. P. S., (27) vol. vi, 1836, p. 28; 1838, pp. 127, 147; Obs. Gen. Unio, (29) vol. ii, pp. 28, 127, 147.

U. Novæ Hollandiæ.

T. A. P. S., (27) vol. vi, 1838, pp. 124, 148; Obs. Gen. Unio, (29) vol. ii, pp. 124, 148.

U. Novi-Eboraci.

T. A. P. S., (27) vol. vi, 1838, pp. 127, 147; J. A. N. S., (147) vol. iv, 1858, p. 47, pl. v, f. 14; (189) vol. iv, 1860, pp. 343, 350; (221) vol. v. 1863, p. 419; Obs. Gen Unio, (29) vol. ii, pp. 127, 147; (150) vol. vi, p. 47, pl. v, f. 14; (205) vol. viii, pp. 25, 32; (222) vol. x. p. 55.

U. nubilus.

J. A. N. S., (257) vol. vi, 1868, p. 298, pl. xliv, f. 110; Obs. Gen. Unio, (259) vol. xii, p. 59, pl. xliv, f. 110.

U. nucleopsis.

T. A. P. S., (79) vol. x, 1852, p. 281; J. A. N. S., (159) vol. iv, 1859, p. 220; (203) vol. v, 1861, p. 79; Obs. Gen. Unio, (83) vol. v, p. 37; (170) vol. vii, p. 38; (205) vol. viii, p. 83.

U. nucleus.

P. A. N. S., (110) vol. viii, 1856, p. 94; J. A. N. S., (133) vol. iii, 1857, pp. 297, 300, 306, pl. xxviii, f. 21; Obs. Gen. Unio, (150) vol. vi, pp. 17, 20, 26, pl. xxviii, f. 21.

U. Nuttallianus.

P. A. N. S., (112) vol. viii, 1856, p. 103; J. A. N. S., (133) vol. iii, 1857, pp. 310, 311, pl. xxx, f. 25; Obs. Gen. Unio, (150) vol. vi. pp. 30, 31.

U. nux.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 283, pl. xxiv, f. 43; J. A. N. S., (189) vol. iv, 1860, p. 344; (203) vol. v, 1861, pp. 58, 90, 101; (221) vol. v, 1863, p. 439; Obs. Gen. Unio, (83) vol. v, p. 39, pl. xxiv, f. 43; (205) vol. viii, p. 26, 62, 94, 105; (222) vol. x, p. 75.

U. Nyassaensis.

J. A. N. S., (242) vol. vi, 1866, pp. 33, 35, pl. xii, f. 32; Obs. Gen. Unio, (244) vol. xi, pp. 37, 39, pl. xii, f. 32.

Unio obesus.

T. A. P. S., (15) vol. iv, 1830, p. 96, pl. xiii, f. 26; 1831, p. 108; (20) vol. v, 1832, p. 39; 1834, p. 102; (27) vol. vi, 1838, pp. 129, 147; J. A. N. S., (148) vol. iv, 1858, p. 75; (221) vol. v, 1863, p. 404; (242) vol. vi, 1866, p. 22; Obs. Gen. Unio, (21) vol. i, pp. 106, 151, 214, pl. xiii, f. 26; (29) vol. ii, pp. 129, 147; (150) vol. vi, p. 75; (222) vol. x, p. 40; (244) vol. x, p. 26.

U. obfuscus.

P. A. N. S., (129) vol. ix, 1857, p. 172; J. A. N. S., (159) vol. iv, 1859, p. 197, pl. xxii, f. 80; Obs. Gen. Unio, (170) vol. vii, p. 15, pl. xxii, f. 80.

U. oblatus.

J. A. N. S., (242) vol. v, 1866, p. 13, pl. iv, f. 10; Obs. Gen. Unio, (244) vol. xi, p. 17, pl iv, f. 10.

U. obliquata.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. obliquus.

T. A. P. S., (12) vol. iii, 1829, p. 422; (20) vol. v, 1833, p. 88; (27) vol. vi, 1838, pp. 125, 147; (43) vol. viii, 1840, p. 212; (55) vol. x, 1845, p. 71; P. A. N. S., (66) vol. v, 1851, p. 192; J. A. N. S., (168) vol. iv, 1859, p. 271; (221) vol. v, 1863, p. 441; Obs. Gen. Unio, (21) vol. i, pp. 36, 200; (29) vol. ii, pp. 125, 147; (44) vol. iii, p. 50; (56) vol. iv, p. 71; (170) vol. vii, p. 89; (222) vol. x, p. 77.

U. oblongus.

J. A. N. S., (273) vol. viii, 1874, p. 52, pl. viii, f. 50; Obs. Gen. Unio, (225) vol. xiii, p. 56, pl. xviii, f. 50.

U. obnubilus.

P. A. N. S., (129) vol. ix, 1857, p. 169; J. A. N. S., (148) vol. iv, 1858. pp. 84, 86, pl. xvii, f. 64; Obs. Gen. Unio, (150) vol. vi, pp. 84, 86, pl. xvii, f. 64.

U. obovalis.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. obovatus.

T. A. P. S., (20) vol. v, 1833, p. 73; Obs. Gen. Unio, (21) vol. i, p. 185.

U. obscurus.

T. A. P. S., (27) vol. vi, 1834, p. 7, pl. iii, f. 7, 1838, pp. 128, 147; (43) vol. viii, 1840, p. 206; (55) vol. x, 1845, p. 77; (79) vol. x, 1852, p. 272; J. A. N. S, (221) vol. v, 1863, p. 442; Obs. Gen. Unio, (29) vol. ii, pp. 7, 128, 147, pl. iii, f. 7; (44) vol. iii, p. 44; (56) vol. iv, p 77; (83) vol. v, p. 28; (222) vol. x, p. 78.

U. obtusus.

T. A. P. S., (27) vol. vi, 1838, pp. 130, 134, 151; (43) vol. viii, 1840, p. 201, pl. xi. f. 13; P. A. P. S., (35) vol. i, 1840, p. 287; J. A. N. S., (147) vol. iv, 1858, p. 46, pl. v, f. 1; (168) vol. iv, 1859, p. 267; (221) vol. v, 1863, p. 406; Obs. Gen. Unio, (29) vol. ii, pp. 130, 134, 151; (44) vol. iii, p. 39, pl. xi, f. 13; (150) vol. vi, p. 46, pl. v, f. 1; (170) vol. vii, p. 85; (222) vol. x, p. 42.

U. obuncus.

J. A. N. S., (273) vol. viii, 1874, p. 9, pl. ii, f. 5; Obs. Gen. Unio, (275) vol. xiii, p. 13, pl. ii, f. 5.

Unio occatus.

P. A. N. S., (187) vol. xii, 1860, p. 36 S., (220) vol. v, 1863, p. 398, pl. l, Gen. Unio, (222) vol. x, p. 34, pl.

U. occidens.

T. A. P. S, (12) vol. iii, 1829, pp. 4 435, pl. x, f. 16; (15) vol. iv, 1831 vol. v, 1832, pp. 26, 42, 89; (27) p. 49; 1838, pp. 104, 125, 126, 1 viii, 1840, p. 207; 1841, p. 231; (79 p. 266; P. A. N. S., (135) vol. x, 14; J. A. N. S., (147) vol. iv, 185 f. 13; (221) vol. v, 1863, p. 418; 1866, p. 27; Obs. Gen. Unio, (2 23, 25, 34, 49, 129, 138, 154, 201. (29) vol. ii, pp. 49, 104, 125, 126, 1 iii, pp. 44, 69; (83) vol. v, p. 22; p. 47, pl. v, f. 13; (222) vol. x, p. 3 xi, p. 31.

U. occultus.

T. A. P. S., (54) vol. ix, 1843, p. 279 (79) vol. x, 1852, pp. 273, 283, 284 Unio, (56) vol. iv, p. 279, pl. xli, v, pp. 29, 39, 40.

U. ochraceus.

T. A. P. S., (12) vol. iii, 1829, pp. (20) vol. v, 1833, p. 88; (27) vol. 49, 54, 57, 71; 1838, pp. 126, 147; 1840, pp. 216, 238; J. A. N. S., 1863, pp. 438, 455; (242) vol. vi Obs. Gen. Unio, (21) vol. i, pp. 2 (29) vol. ii, pp. 49, 51, 54, 57, 71, 1 iii, pp. 54, 76; (222) vol. x, pp. vol. xi, p. 63.

U. Ocmulgéensis.

P. A. N. S., (192) vol. xiii, 1861, p. 38 (203) vol. v, 1861, p. 95, pl. xiv, Gen. Unio, (205) vol. viii, p. 99, 1

U. olivarius.

T. A. P. S., (15) vol. iv, 1831, p. 108, (27) vol. vi, 1838, pp. 126, 128, 14 N. S., (133) vol. iii, 1857, p. 311 Unio, (21) vol. i, p. 118, pl. xvi, f. ii, pp. 126, 128, 144, 145; (150)

U. opacus.

P. A. N. S., (129) vol. ix, 1857, p. 169 (148) vol. v, 1858, pp. 85, 86, pl. Obs. Gen. Unio, (150) vol. vi, p xviii, f. 66.

U. orbicularis.

T. A. P. S., (12) vol. iii, 1829, p. 418 Unio, (21) vol. i, p. 32.

U. orbiculatus.

T. A. P. S., (12) vol. iii, 1829, p. 418; 1836, p. 35; 1838, pp. 127, 147; (1841, p. 231; J. A. N. S. (148) vo 78; (213) vol. v, 1862, p. 189; 1863, p. 430; Obs. Gen. Unio. (32; (29) vol. ii, pp. 55, 127; (44) v (150) vol. vi, p. 78; (215) vol. ix, vol. x, p. 66.

U. Oregonensis.

P. A. P. S., (93) vol. v, 1852, p. 252; (79) vol. x, 1852, p. 275 pl. xxii. N. S., (168) vol. iv, 1859, p. 256 Unio, (83) vol. v, p. 31, pl. xxii, vol. vii, p. 74.

Lo oriens.

T. A. P. S., (15) vol. iv, 1830, pp. 68, 73, pl. vi, f. 5; 1831, p. 107; (20) vol. v, 1832, p. 37; (27) vol. vi, 1838, pp. 128, 131, 142; J. A. N. S., (221) vol. v, 1863, p. 440; Obs. Gen. Unio, (21) vol. i, pp. 78, 83, 117, 149, pl. vi, f. 5; (29) vol. ii, pp. 128, 131, 142; (222) vol. x, p. 76.

orientalis.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; (43) vol. viii, 1840, p. 221, pl. xviii, f. 38; P. A. P. S., (35) vol. i, 1846, p. 285; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151; (44) vol. iii, p. 59, pl. xviii, f. 38.

ornatus.

P. A. N. S., (192) vol. xiii, 1861, p. 41; J. A. N. S., (189) vol. iv, 1860, p. 353; (203) vol. v, 1861, p. 85, pl. xi, f. 234; Obs. Gen. Unio, (205) vol. viii, pp. 35, 89, pl. xi, f. 234.

Orontesensis.

J. A. N. S., (242) vol. vi, 1866, pp. 53, 56, pl. xviii, f. 50; Obs. Gen. Unio, (244) vol. xi, pp. 57, 60, pl. xviii, f. 50.

Orphænusis.

J. A. N. S., (257) vol. vi, 1868, p. 250, pl. xxix, f. 64; Obs. Gen. Unio, (259) vol. xii, p. 10, pl. xxix, f. 64.

Ortonii.

J. A. N. S., (258) vol. vi, 1868, p. 321, pl. lii, f. 134; Obs. Gen. Unio, (259) vol. xii, p. 81, pl. lii, f. 134.

Othcaloogensis.

P. A. N. S., (119) vol. ix, 1857, p. 32; J. A. N. S., (148) vol. iv, 1858, pp. 74, 91, pl. xiv, f. 54; (274) vol. viii, 1874, p. 69, pl. xxi, f. 11; Obs. Gen. Unio, (150) vol. vi, pp. 74, 91, pl. xiv, f. 54; (275) vol. xiii, p. 73, pl. xxi, f. 11.

ovalis.

T. A. P. S., (27) vol. vi, 1838, pp. 132, 145; (54) vol. ix, 1843, p. 276; Obs. Gen. Unio, (29) vol. ii, pp. 132, 145; (56) vol. iv, p. 276.

ovatus.

T. A. P. S., (9) vol. iii, 1827, p. 268; (12) vol. iii, 1829, pp. 409, 411, 417, 423, 436; (15) vol. iv, 1831, p. 119; (20) vol. v, 1833, pp. 89, 91; (27) vol. vi, 1836, p. 55, 1838, pp. 103, 125, 126, 132, 144, 147; (43) vol. viii, 1841, p. 231; (70) vol. x, 1852, p. 266; J. A. N. S., (147) vol. iv, 1858, p. 47, pl. v, f. 15; (148) vol. iv, 1858, p. 72; (168) vol. iv, 1859, p. 268; (221) vol. v, 1863, p. 435; Obs. Gen. Unio, (21) vol. i, pp. 10, 23, 25, 31, 37, 50, 129, 201, 203; (29) vol. ii, pp. 55, 103, 125, 126, 132, 144, 147; (44) vol. iii, p. 69; (83) vol. v, p. 22; (150) vol. vi, pp. 47, 72, pl. v, f. 15; (170) vol. vii, p. 86; (222) vol. x, p. 71.

O. oviformis.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; (43) vol. viii, 1841, pp. 238, 242; J. A. N. S., (203) vol. v, 1861, p. 86; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151; (44) vol. iii, pp. 76, 80; (205) vol. viii, p. 90.

1748—Bull. 23——17

Unio paliatus.

T. A. P. S., (27) vol. vi, 1838, pp. 125, 144; Obs. Gen. Unio, (29) vol. ii, pp. 125, 144.

U. pachostea.

T. A. P. S., (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (29) vol. ii, p. 130.

U. pallens.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. pallescens.

T. A. P. S., (55) vol. x, 1845, p. 79; Obs. Gen. Unio, (56) vol. iv, p. 79; (205) vol. viii, p. 74, pl. vii, f. 20; J. A. N. S., (203) vol. v, 1861, p. 70.

U. palliatus.

T. A. P. S., (27) vol. vi, 1838, p. 147; Obs. Gen. Unio, (29) vol. ii, p. 147.

U. pallida.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. pallidofulvus.

T. A. N. S., (196) vol. xiii, 1861, p. 60; J. A. N. S., (203) vol. v, 1861, pp. 83, 85, pl. xi, f. 232; Obs. Gen. Unio, (205) vol. viii, pp. 87, 89, pl. xi, f. 232.

U. Paphos.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. parallelopipedon.

T. A. P. S., (20) vol. v, 1833, p. 60, pl. viii, f. 20; (27) vol. vi, 1838, pp. 132, 148; J. A. N. S., (168) vol. iv, 1869, p. 245; (220) vol. v, 1863, pp. 377, 378, 387; Obs. Gen. Unio, (21) vol. i, p. 172, pl. viii, f. 20; (29) vol. ii, pp. 132, 148; (170) vol. vii, p. 63; (222) vol. x, pp. 13, 14, 23.

U. Paramattensis.

J. A. N. S., (242) vol. vi, 1866, p. 60, pl. xx, f. 59; Obs. Gen. Unio, (244) vol. xi, p. 64, pl. xx, f. 59.

U. Paranensis.

T. A. P. S., (20) vol. v, 1834, p. 99, pl. xiv, f. 42; (27) vol. vi, 1838, pp. 131, 143, 148; J. A. N. S., (133) vol. iii, 1857, pp. 289, 308, 309; (168) vol. iv, 1859, p. 265; (220) vol. v, 1863, pp. 377, 379, 381, 384, 385, 386; Obs. Gen. Unio, (21) vol. i, p. 211, pl. xiv, f. 42; (29) vol. ii, pp. 131, 143, 148; (150) vol. vi, pp. 9, 28; (170) vol. vii, p. 83; (222) vol. x, pp. 13, 15, 17, 20, 21, 32.

U. Paraguayensis.

J. A. N. S., (257) vol. vi, 1868, p. 271, pl. xxxv, f. 85; Obs. Gen. Unio, (259) vol. xii, f. 31, pl. xxxv, f. 85.

U. parcus.

J. A. N. S., (257) vol. vi, 1868, p. 262, pl. xxxiii, ff. 33, 77; Obs. Gen. Unio, (259) vol. xii, p. 22, pl. xxxiii, f. 77.

U. Parvensis.

J. A. N. S., (257) vol. vi, 1868, p. 302, pl. xlv, f. 114; Obs. Gen. Unio, (259) vol. xii, p. 62, pl. xlv, f. 114.

U. parvulus.

P. A. N. S., (186) vol. xii, 1860, p. 307; J. A. N. S., (242) vol. vi, 1866, p. 45, pl. xvi, f. 43; Obs. Gen. Unio, (244) vol. xi, p. 49, pl. xvi, f. 43.

Unio parvus.

T. A. P. S., (12) vol. iii, 1829, pp. 409, 412, 413, 419, 420, 440; (15) vol. iv, 1830, p. 87; (20) vol. v, 1834, p. 101; (27) vol. vi, 1836, p. 55; 1838, pp. 129, 147; (43) vol. viii, 1841, pp. 231, 214, 247; (54) vol. ix, 1843, p. 277; (79) vol. x, 1852, pp. 262, 269; J. A. N. S., (133) vol. iii, 1857, p. 300; (159) vol. iv, 1859, p. 221, pl. xxix, f. 102, 102*a*; (189) vol. iv, 1860, pp. 360, 362; (203) vol. v, 1861, p. 97; (213) vol. v, 1862, p. 205; (221) vol. v, 1863, pp. 403, 405, 440, 444; (242) vol. vi, 1866, pp. 20, 27, 49, 50; (274) vol. viii, 1874, p. 68. pl. xxi, f. 3; Obs. Gen. Unio, (21) vol. i, pp. 23, 26, 27, 33, 34, 54, 97, 213; (29) vol. ii, pp. 55, 129; (44) vol. iii, pp. 52, 69, 85; (56) vol. ix, p. 277; (83) vol. v, pp. 18, 25; (150) vol. vi, p. 20; (170) vol. vii, p. 39, pl. xxix, f. 102, 102*a*; (205) vol. viii, pp. 42, 44, 101; (215) vol. ix, p. 27; (222) vol. x, pp. 39, 41, 76, 80; (244) vol. xi, pp. 24, 31, 53, 54; (275) vol. xiii, p. 72, pl. xxi, f. 3.

U. Patagonicus.

T. A. P. S., (27) vol. vi, 1838, pp. 133, 148; Obs. Gen. Unio, (29) vol. ii, pp. 133, 148.

U. patelloides.

P. A. N. S., (175) vol. xii, 1860, p. 89; J. A. N. S., (220) vol. v, 1863, p. 383, pl. xliii, f. 291; Obs. Gen. Unio, (222) vol. x, p. 19, pl. xliii, f. 291.

U. pattinoides.

J. A. N. S., (273) vol. viii, 1874, p. 16, pl. iv, f. 12; Obs. Gen. Unio, (275) vol. xiii, p. 20, pl. iv, f. 12.

U. patulus.

T. A. P. S., (12) vol. iii, 1829, pp. 409, 412, 421, 441, pl. xii, f. 20; (15) vol. iv, 1830, p. 93; (20) vol. v, 1833, pp. 33, 74; (27) vol. vi, 1838, pp. 126, 147; (43) vol. viii, 1841, p. 231; J. A. N. S., (159) vol. iv, 1859, p. 210; (189) vol. iv, 1860, p. 352; (221) vol. v, 1863, p. 422; Obs. Gen. Unio, (21) vol. i, pp. 23, 26, 35, 55, 103, 145, 186, pl. xii, f. 20; (29) vol. ii, p. 126; (44) vol. iii, p. 69; (170) vol. vii, p. 28; (205) vol. viii, p. 34; (222) vol. x, p. 58.

U. pauciplicatus.

J. A. N. S., (273) vol. viii, 1874, p. 29, pl. ix, f.; Obs. Gen. Unio, (275) vol. xiii, p. 33, pl. ix, f. 26.

U. paulus.

P. A. P. S., (35) vol. i, 1840, p. 287; T. A. P. S., (43) vol. viii, 1840, p. 213, pl. xv, f. 29; J. A. N. S., (159) vol. iv, 1859, pp. 221, 222; (189) vol. iv, 1860, p. 344; (221) vol. v, 1863, pp. 402, 405; (242) vol. vi, 1866, p. 50; Obs. Gen. Unio; (44) vol. iii, p. 51, pl. xv, f. 29; (170) vol. vii, pp. 39, 40; (205) vol. viii, p. 26; (222) vol. x, pp. 38, 41; (244) vol. xi, p. 54.

U. paupercolus.

P. A. N. S., (192) vol. xiii, 1861, p. 39; J. A. N. S., (203) vol. v, 1861, p. 99, pl. xv, f. 247; Obs. Gen. Unio, (205) vol. viii, p. 103, pl. xv, f. 247.

U. Pazii.

J. A. N. S., (242) vol. vi, 1866, p. 61, pl. xxi, f. 60; Obs. Gen. Unio, (244) vol. xi, p. 65, pl. xxi, f. 60.

Unio Pealei.

J. A. N. S., (273) vol. viii, 1874, p. 26, pl. viii, f. 23; Obs. Gen. Unio, (275) vol. xiii, p. 30, pl. viii, f. 23.

U. pectorosus.

T. A. P. S., (27) vol. vi, 1838, pp. 126, 147; Obs. Gen. Unio, (29) vol. ii, pp. 126, 147.

U. peculiaris.

J. A. N. S., (257) vol. vi, 1868, p. 265, pl. xxxiv, f. 80; Obs. Gen. Unio, (259) vol. xii, p. 25, pl. xxxiv, f. 80.

U. pellucidus.

T. A. P. S., (55) vol. x, 1845, p. 70, pl. ii, f. 6; Obs. Gen. Unio, (56) vol. iv, p. 70, pl. ii, f. 6.

U. penicillatus.

P. A. N. S., (129) vol. ix, 1857, p. 171; J. A. N. S., (147) vol. iv, 1858, p. 47, pl. v, f. 5; (159) vol. iv, 1859, p. 203, pl. xxiii, f. 85; (221) vol. v, 1862, p. 411; (242) vol. vi, 1866, p. 46; Obs. Gen. Unio, (150) vol. vi, p. 47, pl. v, f. 5; (170) vol. vii, p. 21, pl. xxiii, f. 85; (222) vol. x, p. 47; (244) vol. xi, p. 50.

U. penitus.

T. A. P. S., (27) vol. vi, 1838, pp. 124, 147; J. A. N. S., (159) vol. iv, 1859, p. 219; (221) vol. v, 1863, pp. 440, 444; Obs. Gen. Unio, (29) vol. ii, pp. 124, 147; (170) vol. vii, p. 37; (222) vol. x, pp. 76, 80.

U. peræformis.

P. A. N. S., (176) vol. xii, 1860, p. 90; J. A. N. S., (220) vol. v, 1863, p. 384, pl. xliii, f. 292; Obs. Gen. Unio, (222) vol. x, p. 20, pl. xliii, f. 292.

U. percoarctatus.

P. A. N. S., (123) vol. ix, 1857, p. 85; J. A. N. S., (203) vol. v, 1861, pp. 59, 88, pl. iii, f. 208; (213) vol. v, 1862, p. 201; Obs. Gen. Unio, (205) vol. viii, pp. 62, 63, 92, pl. iii, f. 206; (215) vol. ix, p. 23.

U. perdix.

T. A. P. S., (20) vol. v, 1833, pp. 72, 74, pl. xi, f. 20; (27) vol. vi, 1838, pp. 126, 147; (43) vol. viii, 1840, p. 198; Obs. Gen. Unio, (21) vol. i, pp. 184, 186, pl. xi, f. 31; (29) vol. ii, pp. 126, 147; (44) vol. iii, p. 36.

U. peregrinus.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. perlatus.

J. A. N. S., (242) vol. vi, 1866, p. 15, pl. iv, f. 13; Obs. Gen. Unio, (244) vol. xi, p. 19, pl. iv, f. 13.

U. perlucens.

J. A. N. S., (242) vol. vi, 1866, p. 18, pl. v, f. 16; Obs. Gen. Unio, (244) vol. xi, p. 22, pl. v, f. 16.

U. permiscens.

P. A. N. S., (151) vol. xi, 1859, p. 112; J. A. N. S., (203) vol. v, 1861, pp. 76, 102, pl. xvii, f. 251; Obs. Gen. Unio, (205) vol. viii, pp. 80, 108, pl. xvii, f. 251.

U. pernodosus.

T. A. P. S., (55) vol. x, 1845, p. 71, pl. ii, f. 8; Obs. Gen. Unio, (56) vol. iv, p. 71, pl. ii, f. 8.

U. perovalis.

T. A. P. S., (27) vol. vi, 1838, pp. 122, 147; Obs. Gen. Unio, (29) vol. ii, pp. 122, 147.

(27) vol. vi, 1838, pp. 127, 147; J. A.
202) vol. v, 1861, p. 90; Obs. Gen.
9) vol. ii, pp. 127, 147; (205) vol. viii,

196) vol. xiii, 1861, p. 60; J. A. N. S.,
l. v, 1861, p. 69, pl. vii, f. 219; Obs.
io, (205) vol. viii, p. 73, pl. vii, f. 219.

185) vol. xii, 1860, p. 306; J. A. N.
vol. iv, 1860, p. 350, pl. lviii, f. 175;
n. Unio, (205) vol. viii, p. 32, pl. lviii,

15) vol. iv, 1831, p. 112, pl. xvii, f. 42;
v, 1832, p. 32; (27) vol. vi, 1836, p.
p. 95; (27) vol. vi, 1838, pp. 124, 144,
) vol. viii, 1841, pp. 194, 231; J. A.
147) vol. iv, 1858, p. 48, pl. v, f. 21;
l. iv, 1858, p. 74; (203) vol. v, 1861, p.
) vol. v, 1862, p. 193; (221) vol. v,
420, 426, 442, 444; Obs. Gen. Unio,
i, pp. 122, 144, pl. xvii, f. 42; (29)
p. 51, 95, 124, 144, 147; (44) vol. iii,
); (150) vol. vi, pp. 48, 74, pl. v, f. 21;
viii, p. 68; (215) vol. ix, p. 15; (222)
p. 56, 62, 78, 80.
.
192) vol. xiii, 1861, p. 41; J. A. N. S.,
vi, 1866, p. 46, pl. xvi, f. 44; Obs.
io, (244) vol. xi, p. 50, pl. xvi, f. 44.

136) vol. x, 1858, p. 40; J. A. N. S.,
v, 1861, p. 66, pl. vi, f. 215; Obs.
io, (205) vol. viii, p. 70, pl. vi, f. 215.

(27) vol. vi, 1838, pp. 131, 147; (43)
1841, p. 231; J. A. N. S., (221) vol.
. 442; Obs. Gen. Unio, (29) vol. ii,
47; (44), vol. iii, p. 69; (222) vol.

3) vol. v, 1852, p. 252; T. A. P. S.,
x, 1852, p. 255, pl. xxi, f. 3; J. A. N.
vol. v, 1861, p. 58; Obs. Gen. Unio,
v, p. 11, pl. xii, f. 3; (205) vol. viii,

52) vol. xi, 1859, p. 153; J. A. N. S.,
. iv, 1859, p. 255, pl. xl, f. 135; Obs.
o, (170) vol. vii, p. 73, pl. xl, f. 135.

42) vol. vi, 1866, p. 8, pl. ii, f. 4; Obs.
o, (244) vol. xi, p. 12, pl. ii, f. 4.

12) vol. iii, 1829, pp. 406, 417, 418,
vol. v, 1833, p. 87; (27) vol. vi, 1838,
bs. Gen. Unio, (21) vol. i, pp. 20,
, 199, also errata; (29) vol. ii, p.

89) vol. iv, 1860, pp. 359, 372; (203)
61, p. 100; (213) vol. v, 1862, p. 186;
. Unio, (205) vol. viii, pp. 41, 54,
) vol. ix, p. 18.

Unio petrosus.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. phaseolus.

T. A. P. S., (27) vol. vi, 1836, p. 51; 1838, pp. 133, 147; (43) vol. viii, 1841, pp. 231, 240; (55) vol. x, 1845, p. 81; P. A. N. S., (110) vol. viii, 1856, p. 94; J. A. N. S. (133) vol. iii, 1857, pp. 297, 299, pl. xxvi, f. 11; (147) vol. iv, 1858, p. 47, pl. v, f. 12; (148) vol. iv, 1858, p. 86; (159) vol. iv, 1859, pp. 191, 199, 200, 229, pl. xxix, ff. 101, 101*a*; (221) vol. v, 1863, pp. 404, 408, 443, 444; Obs. Gen. Unio, (29) vol. ii, pp. 51, 133, 147; (44) vol. iii, pp. 69, 78; (56) vol. iv, p. 81; (150) vol. vi, pp. 17, 19, 86, pl. v, f. 12; pl. xxvi, f. 11; (170) vol. vii, pp. 9, 17, 18, 38, pl. xxix, ff. 101, 101*a*; (222) vol. x, pp. 40, 44, 54, 79, 80.

U. Phillipsii.

T. A. P. S., (27) vol. vi, 1838, pp. 123, 147; (43) vol. viii, 1840, p. 194; Obs. Gen. Unio, (29) vol. ii, pp. 123, 147; (44) vol. iii, p. 32.

U. Pianensis.

T. A. P. S., (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (29) vol. ii, p. 130.

U. piceus.

P. A. N. S., (176) vol. xii, 1860, p. 91; J. A. N. S., (220) vol. v, 1863, p. 379, pl. xli, f. 287; Obs. Gen. Unio, (222) vol. x, p. 15, pl. xli, f. 287.

U. pictorum.

T. A. P. S., (9) vol. iii, 1827, p. 267; (12) vol. iii, 1829, pp. 406, 414, 417, 423, 424, 425; (15) vol. iv, 1830, p. 67; (20) vol. v, 1833, pp. 90, 91, 92; (27) vol. vi, 1838, pp. 118, 128, 132, 145; (43) vol. viii, 1840, pp. 197, 222; (79) vol. x, 1852, p. 270; Obs. Gen. Unio, (21) vol. i, pp. 9, 20, 28, 31, 37, 38, 39, 77, 202, 203, 204; (29) vol. ii, pp. 118, 128, 132, 145; (44) vol. iii, pp. 35, 60; (83) vol. v, p. 26.

U. pictus.

T. A. P. S., (20) vol. v, 1833, pp. 73, 74, pl. xi, f. 32; (27) vol. vi, 1838, pp. 127, 147; (43) vol. viii, 1841, p. 244; J. A. N. S., (189) vol. iv, 1860, pp. 351, 353, 355; Obs. Gen. Unio, (21) vol. i, p. 186; (29) vol. ii, pp. 127, 147; (44) vol. iii, p. 82; (205) vol. viii, pp. 33, 35, 37.

U. piger.

P. A. N. S., (176) vol. xii, 1860, p. 90; J. A. N. S., (220) vol. v, 1863, p. 387, pl. xlv, f. 296; Obs. Gen. Unio, (222) vol. x, p. 23, pl. xlv, f. 296.

U. pilaris.

P. A. P. S., (35) vol. i, 1840, p. 285; T. A. P. S., (43) vol. viii, 1840, p. 209, pl. xiv, f. 24; Obs. Gen. Unio, (44) vol. iii, p. 47, pl. xiv, f. 24.

U. platus.

J. A. N. S., (257) vol. vi, 1868, p. 281, pl. xxxviii, f. 95; Obs. Gen. Unio, (259) vol. xii, p. 41, pl. xxxviii, f. 95.

U. pileus.

T. A. P. S., (15) vol. iv, 1831, p. 119, pl. xviii, f. 47; (27) vol. vi, 1838, pp. 125, 147; (43) vol. viii, 1841, p. 231; Obs. Gen. Unio, (21) vol. i, p. 129, pl. xviii, f. 47; (29) vol. ii, pp. 125, 147; (44) vol. iii, p. 69.

Uni

1838, p

281, 2

vol. x

vol. ii

221, 1

pp.

vol

40

27.

f. 3

27,

(4

27

p

p

U. Pat

T.

U. pa

P

U. j

U

Unio Priestianus.

P. A. P. S., (93), vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 269, pl. xix, f. 24; J. A. N. S., (159) vol. iv, 1859, p. 194; (189) vol. iv, 1860, p. 350; Obs. Gen. Unio, (83) vol. v, p. 25, pl. xviii, f. 24; (170), vol. vii, p. 12; (205) vol. viii, p. 32.

U. productus.

T. A. P. S., (27) vol. vi, 1838, pp. 132, 147; Obs. Gen. Unio, (29) vol. ii, pp. 132, 147.

U. propinquus.

P. A. N. S., (129) vol. ix, 1857, p. 83; J. A. N. S., (203) vol. v, 1861, p. 63, pl. v, f. 212; Obs. Gen. Unio, (205) vol. viii, p. 67, pl. v, f. 212.

U. proprius.

P. A. N. S., (235) vol. xvii, 1865, p. 89; J. A. N. S. (257) vol. vi, 1868, p. 256, pl. xxxi, f. 70; Obs. Gen. Unio, (259) vol. xii, p. 16, pl. xxxi, f. 70.

U. proteneus.

P. A. N. S., (235) vol. xviii, 1865, p. 88; J. A. N. S., (257) vol. vi, 1868, p. 256, pl. xxxi, f. 71; Obs. Gen. Unio, (259) vol. xii, p. 16, pl. xxxi, f. 71.

U. proximus.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 271, pl. xx, f. 27; J. A. N. S., (189) vol. iv, 1860, p. 340; Obs. Gen. Unio, (83) vol. v, p. 27, pl. xx, f. 27; (205) vol. viii, p. 22.

U. prunoides.

J. A. N. S., (258) vol. vi, 1868, p. 323, pl. liii, f. 136; Obs. Gen. Unio, (259) vol. xii, p. 83, pl. liii, f. 136.

U. psammoica.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. pulicus.

P. A. N. S., (177) vol. xii, 1860, p. 92; J. A. N. S., (189) vol. iv, 1860, p. 346, pl. xlvi, f. 171; Obs. Gen. Unio, (205) vol. viii, p. 28, pl. lvi, f. 171.

U. pulcher.

T. A. P. S., (27) vol. vi, 1834, pp. 6, 16, pl. iii, f. 6; 1838, pp. 127, 147; Obs. Gen. Unio, (29) vol. ii, pp. 6, 16, pl. iii, f. 6; (29) vol. ii, pp. 127 147.

U. pulchellus.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. pullatus.

P. A. N. S., (116) vol. viii, 1856, p. 262; J. A. N. S., (148) vol. iv, 1858, pp. 57, 76, pl. viii, f. 39; (189) vol. iv, 1860, p. 329; (203) vol. v, 1861, p. 54; Obs. Gen. Unio, (150) vol. vi, pp. 57, 76, pl. viii, f. 39; (205) vol. viii, pp. 11, 58.

U. pulvinulus.

T. A. P. S., (55) vol. x, 1845, p. 81, pl. viii, f. 24; (79) vol. x, 1852, p. 279; J. A. N. S., (189) vol. iv, 1860, p. 348; (203) v, 1861, p. 58; Obs. Gen. Unio, (56) vol. iv, p. 81, pl. viii, f. 24; (83) vol. v, p. 35; (205) vol. viii, pp. 30, 62.

U. pumilus.

T. A. P. S., (27) vol. vi, 1836, p. 23, pl. vii, f. 17; 1838, pp. 125, 147; Obs. Gen. Unio, (29) vol. ii, pp. 23, 125, 147, pl. vii, f. 17.

Unio punctatus.

P. A. N. S., (235) vol. xvii, 1865, p. 89; J. A. N. S., (257) vol. vi, 1868, p. 261, pl. xxxii, f. 76; Obs. Gen. Unio, (259) vol. xii, p. 21, pl. xxxii, f. 76.

U. purpurascens.

T. A. P. S., (12) vol. iii, 1829, pp. 416, 422; (20) vol. v, 1833, p. 88; (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (21) vol. i, pp. 30, 36, 200; (29) vol. ii, p. 130.

U. purpuratus.

T. A. P. S., (12) vol iii, 1829, pp. 418, 422; (20) vol. v, 1833, p. 87; (27) vol. vi, 1836, p. 49; 1838, pp. 133, 134, 143, 147, 151; (54) vol. ix, 1843, p. 281; J. A. N. S., (133) vol. iii, 1857, p. 314; (203) vol. v, 1861, pp. 76, 80, 102; (221) vol. v, 1863, pp. 425, 436; (242) vol. vi, 1866, p. 27; (274) vol. viii, 1874, p. 69, pl. xxi, f. 13: Obs. Gen. Unio, (21) vol. i, pp. 32, 36, 199; (29) vol. ii, pp. 49, 133, 134, 143, 147, 151; (56) vol. iv, p. 281; (150) vol. vi, p. 34; (205) vol. viii, pp. 80, 84, 106; (222) vol. x, pp. 61, 72; (244) vol. xi, p. 31; (275) vol. xiii, p. 73, pl. xxi, f. 13.

U. purpurellus.

P. A. N. S., (129) vol. ix, 1857, p. 171; J. A. N. S., (159) vol. iv, 1859, p. 198, pl. xxiii, f. 81; Obs. Gen. Unio, (170) vol. vii, p. 16, pl. xxiii, f. 81.

U. purpureus.

T. A. P. S., (12) vol. iii, 1829, pp. 408, 416; (20) vol. v, 1833, p. 88; (27) vol. vi, 1838, p. 119; (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (21) vol. i, pp. 22, 30, 200; (29) vol. ii, pp. 119, 130.

U. purus.

P. A. N. S., (136) vol. x, 1858, p. 41; J. A. N. S., (203) vol. v, 1861, p. 61, pl. iv, f. 209; Obs. Gen. Unio, (205) vol. viii, p. 65, pl. iv, f. 209.

U. pusillus.

P. A. P. S., (35) vol. i, 1860, p. 286; T. A. P. S., (43) vol. viii, 1840, p. 220, pl. xviii, f. 36; (54) vol. ix, 1843, p. 277; J. A. N. S., (189) vol. iv, 1860, p. 341; (242) vol. vi, 1866, p. 10; Obs. Gen. Unio, (44) vol. iii, p. 58, pl. xviii, f. 36; (56) vol. iv, p. 277; (205) vol. viii, p. 23; (244) vol. xi, p. 14.

U. pustulatus.

T. A. P. S., (15) vol. iv, 1830, p. 79, pl. vii, f. 9; (29) vol. ii, 1836, p. 73; (1838) pp. 123, 147; (43) vol. viii, 1841, p. 231; J. A. N. S., (221) vol. v, 1863, p. 429; Obs. Gen. Unio, (21) vol i, p. 89, pl. vii, f. 9; (29) vol. ii, pp. 73, 123, 147; (44) vol. iii, p. 69; (222) vol. x, p. 65.

Unio pustulosus.

T. A. P. S., (15) vol. iv, 1830, pp. 64, 76, pl. viii, f. 7; (20) vol. v, 1833, p. 61; (27) vol. vi, 1834, p. 11; 1838, pp. 119, 123, 147; (43) vol. viii, 1841, p. 231; (79) vol. x, 1852, p. 281; P. A. P. S., (66) vol. v, 1851, p. 192; J. A. N. S., (203) vol. v, 1861, p. 69; (213) vol. v., 1862, p. 206; (221) vol. v, 1863, p. 428; Obs. Gen. Unio, (21) vol. i, pp. 74, 86, 89, 173, pl. vii, f. 7; (29) vol. ii, pp. 11, 119, 123, 147; (44) vol. iii, p. 69; (83) vol. v, p. 37; (205) vol. viii, p. 73; (215) vol. ix, p. 28; (222) vol. x, p. 64.

U. Pybasii.

P. A. N. S., (136) vol. x, 1858, p. 40; J. A. N. S., (203) vol. v, 1861, p. 67, pl. vi, f. 216; Obs. Gen. Unio, (205) vol. viii, p. 71, pl. vi, f. 216.

U. pygmæus.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 262, pl. xv, f. 14; Obs. Gen. Unio, (83) vol. v, p. 18, pl. xv, f. 14.

U. pyriformis.

P. A. N. S., (119) vol. ix, 1857, p. 31; J. A. N. S., (148) vol. iv, 1858, p. 69, pl. xii, f. 50; Obs. Gen. Unio, (150) vol. vi, p. 69, pl. xii, f. 50.

U. pyramidatus.

T. A. P. S., (15) vol. iv, 1831, pp. 109, 111, pl. xvi, f. 39; (27) vol. vi, 1834, pp. 13, 14; (27) vol. vi, 1838, pp. 125, 147; (43) vol. viii, 1840, p. 213; 1841, p. 231; P. A. N. S., (115) vol. viii, 1856, p. 213; J. A. N. S., (221) vol. v, 1863, p. 433; Obs. Gen. Unio, (21) vol. i, pp. 13, 14, 119, 121, pl. xvi, f. 39; (29) vol. ii, pp. 125, 147; (44) vol. iii, pp. 51, 69; (222) vol. x, p. 69.

U. quadrans.

P. A. N. S., (185) vol. xii, 1860, p. 306; J. A. N. S., (189) vol. iv, 1860, p. 360, pl. lxi, f. 185; Obs. Gen. Unio, (205) vol. viii, p. 42, pl. lxi, f. 185.

U. quadratus.

P. A. N. S., (156) vol. xi, 1859, p. 172; J. A. N. S., (205) vol. viii, p. 20, pl. liv, f. 163.

U. quadrilaterus

J. A. N. S., (242) vol. vi, 1866, pp. 5, 15, pl. i, f. 1; Obs. Gen. Unio, (244) vol. xi, pp. 9, 19, pl. i, f. 1.

U. quadrulus.

T. A. P. S., (27) vol. vi, 1838, pp. 123, 144; Obs. Gen. Unio, (29) vol. ii, pp. 123, 144.

U. radians.

P. A. N. S., (119) vol. ix, 1857, p. 32; J. A. N. S., (159) vol. iv, 1859, p. 201, pl. xxiii, f. 84; (189) vol. iv, 1860, p. 342; Obs. Gen. Unio, (170) vol. vii, p. 19, pl. xxiii, f. 84; (205) vol. viii, p. 24.

U. radiatus.

T. A. P. S., (12) vol. iii, 1829, pp. 411, 415, 422, 425; (15) vol., iv, 1830, p. 73; (20) vol. v. 1833, pp. 88, 91; (27) vol. vi, 1834, p. 14; 1836, pp. 39, 49, 50, 52, 53, 54, 57; 1838, pp. 127, 147; (43) vol. viii, 1840, p. 199; 1841, pp. 234, 244; (79) vol. x, 1852, pp. 261, 270; P. A. N. S., (118)

Unio radiatus—Continued.

vol. ix, 1857, pp. 17, 18; J. A. N. S., vol. iv, 1858, p. 48, pl. v, f. 20; (14 1858, pp. 51, 76; (189) vol. iv, 18 (221) vol. v, 1863, pp. 407, 411, Obs. Gen. Unio, (21) vol. i, pp. 83, 200, 203; (29) vol. ii, pp., 14, 52, 53, 54, 56; (29) vol. ii, pp. 127, vol. iii, p. 37, 72, 82; (83) vol. 26; (150) vol. vi, pp. 48, 51, 76, p (205) vol. viii, p. 46; (222) vol. x, 48, 86.

U. radiolus.

J. A. N. S., (273) vol. viii, 1874, p. 21 18; Obs. Gen. Unio, (275) vol. x pl. vi, f. 18.

U. radiosus.

J. A. N. S., (273) vol. viii, 1874, p. 13, p Obs. Gen. Unio, (275) vol. xiii, p. f. 9.

U. Raëensis.

P. A. N. S., (156) vol. xi, 1859, p. 171; S., (189) vol. iv, 1860, p. 331, pl. Obs. Gen. Unio, (205) vol. viii, p. f. 156.

U. Rajahensis.

P. A. P. S., (39) vol. ii, 1841, p. 30; T. (43) vol. viii, 1841, p. 238, pl. xxii A. N. S., (242) vol. vi, 1866, p. 32; Unio, (44) vol. iii, p. 77, pl. xxiii, p vol. xi, p. 36.

U. Raleighensis.

J. A. N. S., (242) vol. vi, 1866, pp. 6, 7 Obs. Gen. Unio, (244) vol. xi, pp. i, f. 2.

U. Rangianus.

T. A. P. S., (27) vol. vi, 1837, p. 95, pl. x 1838, pp. 126, 147; J. A. N. S., (2 1861, p. 64; (213) vol. v, 1862, p. vol. v, 1863, p. 426; Obs. Gen. Unio ii, pp. 95, 126, 147, pl. xviii, f. 56; viii, p. 68; (215) vol ix, p. 15; (222) 62.

U. rariplicata.

T. A. P. S., (12) vol. iii, 1829, pp. 417, (27) vol. vi, 1838, p. 122; Obs. Ge (21) vol. i, pp. 31, 35, 36; (29) vol. i

U. rarisulcata.

T. A. P. S., (12) vol. iii, 1829, pp. 416, vol. v, 1833, p. 88; (27) vol. vi, 183 Obs. Gen. Unio, (21) vol. i, pp. 30 (29) vol. ii, p. 130.

U. rasus.

J. A. N. S., (242) vol. vi, 1866, p. 50, pl. x Obs. Gen. Unio, (244) vol. xi, p. 154 f. 47.

U. ratus.

J. A. N. S., (273) vol. viii, 1874, p. 52, pl 57; Obs. Gen. Unio, (275) vol. xiii, xviii, f. 51.

U. Raveneli.

T. A. P. S., (27) vol. vi, 1838, p. 130; O Unio, (29) vol. ii, p. 130.

U. Raveneliana.

T. A. P. S., (29) vol. v, 1832, p. 32, pl. iii, f. 5; (27) vol. vi, 1838, pp. 126, 147; (43) vol. viii, 1840, p. 233; 1841, p. 236; (79) vol. x, 1852, p. 281; (159) vol. iv, 1859, pp. 205, 228; (189) vol. iv, 1860, p. 349; (213) vol. v, 1862, p. 207; Obs. Gen. Unio, (21) vol. i, p. 144, pl. iii, f. 5; (29) vol. ii, pp. 126, 147; (44) vol. iii, pp. 41, 74; (83) vol. v, p. 37; (170) vol. vii, pp. 26, 46; (205) vol. viii, p. 31; (215) vol. ix, p. 29.

U. rectus.

T. A. P. S., (12) vol. iii, 1829, pp 406, 409, 410, 411, 418, 422, 423; (15) vol. iv, 1830, p. 77; (20) vol. v, 1832, pp. 26, 89; (27) vol vi, 1836, p. 55; 1838, pp. 119, 131, 147; (43) vol. viii, 1841, p. 231; (79) vol. x, 1852, p. 257; P. A. P. S., (66) vol. v, 1851, pp. 192, 193; P. A. N. S., (135) vol. x, 1858, pp 13, 14; J. A. N. S., (147) vol. iv, 1858, p. 47, pl. v, f. 11; (159) vol. iv, 1859, p. 221; (221) vol. v, 1863, p. 426; (242) vol. vi, 1866, p. 27; Obs. Gen. Unio, (21) vol. i, pp. 20, 23, 24, 25, 32, 36, 37, 87, 138, 201; (29) vol. ii, pp. 55, 119; (44) vol. iii, p. 69; (83) vol. v, p. 13; (150) vol. vi, p. 47, pl. v, f. 11; (170) vol. vii, p. 39; (222) vol. x, p. 62; (244) vol. xi, p. 31.

U. recurvatus.

J. A. N. S., (273) vol. viii, 1874, p. 10, pl. ii, f. 6; Obs. Gen. Unio, (275) vol. xiii, p. 14, pl. xiv, f. 6.

U. Rissianus.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (83) vol. v, p. 28, pl. xx, f. 28.

U. rufescus.

T. A. P. S., (27) vol. vi, 1838, p. 123; Obs. Gen. Unio, (29) vol. ii, p. 123.

U. refulgens.

J. A. N. S., (258) vol. vi, 1868, p. 317, pl. li, f. 130; Obs. Gen. Unio, (259) vol. xii, p. 77, pl. li, f. 130.

U. regularis.

P. A. P. S., (40) vol. ii, 1841, p. 82; T. A. P. S., (43) vol viii, 1841, p. 243, pl. xxv, f. 59; Obs. Gen. Unio, (44) vol. iii, p. 81, pl. xxv, f. 59.

U. reniformis.

T. A. P. S., (27) vol. vi, 1838, p. 128; Obs. Gen. Unio, (29) vol. ii, p. 128.

U. Reynienii.

T. A. P. S., (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (29) vol. ii, p. 132.

U. retusus.

T. A. P. S., (12) vol. iii, 1829, p. 422; (20) vol. v, 1832, p. 88; (27) vol. vi, 1836, p. 55; 1838, pp 131, 144, 147; (43) vol. viii, 1841, p. 231; J. A. N. S., (147) vol. iv, 1858, p. 47, pl. v, f. 7; (221) vol. v, 1863, p. 433; Obs. Gen. Unio, (21) vol. i, pp. 36, 200; (29) vol. ii, pp. 55, 131, 144, 147; (44) vol iii, p. 69; (150) vol. vi, p. 47, pl. v, f. 7; (222) vol. x, p. 69.

U. Retzii.

J. A. N. S., (242) vol. vi, 1866, p. 53; Obs. Gen. Unio, (244) vol. xi, p. 57.

U. rhombeus.

T. A. P. S., (27) vol. vi, 1838, pp. 133, 148; Obs. Gen. Unio, (29) vol. ii, pp. 133, 148.

Unio rhomboidea.

T. A. P. S., (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (29) vol. ii, p. 130.

U. rhombula.

T. A. P. S., (12) vol. iii, 1829, pp 416, 422; (20) vol. v, 1833, p. 88; (27) vol. vi, 1838, p. 130; Obs. Gen Unio, (21) vol. i, pp. 30, 36, 200; (29) vol ii, p. 130.

U. rhuocoica.

T. A. P. S., (27) vol vi, 1838, pp. 134, 151; J. A. N. S., (133) vol. iii, 1857, p. 306; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151; (150) vol. vi, p. 26.

U. Riddellii.

P. A. N. S., (200) vol. xiii, 1861, p. 392; J. A. N. S., (213) vol. v, 1862, pp. 197, 198, pl. xxvii, f. 267; Obs. Gen. Unio, (215) vol. ix, pp. 19, 20, pl. xxvii, f. 267.

U. ridibundus.

T. A. P. S., (15) vol. iv, 1831, p. 117; (20) vol. v, 1832, p. 35; (27) vol. vi, 1838, p. 126; (43) vol. viii, 1841, p. 231; J. A. N. S., (221) vol v, 1863, p. 442; Obs. Gen. Unio, (21) vol. i, p. 127; (29) vol. ii, p. 126; (44) vol. iii, p. 69; (222) vol. x, p. 78.

U. rimosus.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. riparia.

T. A. P. S., (27) vol. vi, 1838, p. 128; Obs. Gen. Unio, (29) vol. ii, p. 128.

U. rivalis.

T. A. P. S., (27) vol. vi, 1838, p. 136; Obs. Gen. Unio, (29) vol. ii, p. 136.

U. rivularis.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. Roanokensis.

T. A. P. S., (27) vol. vi, 1836, p. 27, pl. viii, f. 21; 1838, pp. 129, 147; J. A. N. S., (159) vol. iv, 1859, p. 206; (203) vol. v. 1861, p. 61; (213) vol. v. 1862, p. 203; Obs. Gen. Unio, (29) vol. ii, pp. 27, 129, 147, pl. viii, f. 21; (170) vol. vii, p. 24; (205) vol. viii, p. 65; (215) vol. ix, p. 25.

U. Roissyi.

T. A. P. S., (27) vol. vi, 1838, p. 136; Obs. Gen. Unio, (29) vol. ii, p. 136.

U. rosea.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. rostellum.

J. A. N. S., (273) vol. viii, 1874, p 44, pl. xv, f. 41; Obs. Gen. Unio, (275) vol. xiii, p. 48, pl. xv, f. 41.

U. rostraeformis (see *U. rostriformis*).

P. A. N. S., (116) vol. viii, 1856, p. 262.

U. rostrata.

T. A. P. S., (12) vol. iii, 1829, pp. 417, 424; (20) vol. v, 1833, p. 90; (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (21) vol. i, pp. 31, 38, 202; (29) vol. ii, p. 132.

Unio rostriformis.

J. A. N. S., (148) vol. iv, 1858, p. 64, pl. x, f. 46; (203) vol. v, 1861, p. 58; (242) vol. v, 1866, p. 13; Obs. Gen. Unio, (150) vol. vi, p. 64, pl. x, f. 46; (205) vol. viii, p. 62; (244) vol. xi, p. 17.

U. rostrum.

P. A. N. S., (200) vol. xiii, 1861, p. 391; J. A. N. S., (213) vol. v, 1862, p. 201, pl. xxix, f. 270; Obs. Gen. Unio, (215) vol. ix, p. 23, pl. xxix, f. 270.

U. Roswellensis.

P. A. N. S., (143) vol. x, 1858, p. 165; J. A. N. S., (159) vol. iv, 1859, pp. 205, 206, 215, pl. xxiv, f. 87; (189) vol. iv, 1860, p. 333; Obs. Gen. Unio, (170) vol. vii, pp. 23, 24, 33, pl. xxiv, f. 87; (205) vol. viii, p. 15.

U. rotundatus.

T. A. P. S., (12) vol. iii, 1829, pp. 423, 434; (20) vol. v, 1833, pp. 89, 92; (27) vol. vi, 1838, pp. 131, 147; (203) vol. v, 1861, p. 101; Obs. Gen. Unio, (21) vol. i, pp. 37, 48, 201, 204; (29) vol. ii, pp. 131, 147; (205) vol. viii, p. 105.

U. rotundus.

T. A. P. S., (27) vol. vi, 1838, pp. 131, 143; Obs. Gen. Unio, (29) vol. ii, pp. 131, 143.

U. Rowellii.

P. A. N. S., (152) vol. xi, 1859, p. 153; J. A. N. S., (168) vol. iv, 1859, pp. 256, 259, pl. xl, f. 136; (274) vol. viii, 1874, p. 67; Obs. Gen. Unio, (170) vol. vii, pp. 74, 77, pl. xl, f. 136; (275) vol. xiii, p. 71.

U. rubellinus.

P. A. N. S., (119) vol. ix, 1857, p. 32; J. A. N. S., (148) vol. iv, 1858, pp. 51, 70, pl. xiii, f. 51; (242) vol. vi, 1866, p. 46; (274) vol. viii, 1874, p. 68, pl. xxi, f. 5; Obs. Gen. Unio, (150) vol. vi, pp. 51, 70, pl. xiii, f. 51; (244) vol. xi, p. 50; (275) vol. xiii, p. 72, pl. xxi, f. 5.

U. rubellus.

T. A. P S., (27) vol. vi, 1838, pp. 131, 147; Obs. Gen. Unio, (29) vol. ii, pp. 131, 147.

U. rubens.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio. (29) vol. ii, pp. 134, 151.

U. rubidus.

P. A. N. S., (192) vol. xiii, 1861, p. 40; J. A. N. S., (203) vol. v, 1861, pp. 77, 95, pl. xiv, f. 244; Obs. Gen. Unio, (205) vol. viii, pp. 81, 99, pl. xiv, f. 244.

U. rubiginosus.

T. A. P. S., (12) vol. iii, 1829, pp. 409, 412, 413, 420, 427, 438, pl. viii, f. 10; (20) vol. v, 1832, pp. 31, 38; (27) vol. vi, 1836, p. 32; 1838, pp. 125, 147; (43) vol. viii, 1841, pp. 231, 237; (55) vol. x, 1845, p. 77; (79) vol. x, 1852, p. 275; P. A. P. S., (66) vol. v, 1851, p. 192; P. A. N. S., (135) vol. x, 1858, pp. 13, 14; (141) vol. x, 1858, p. 135; J. A. N. S., (148) vol. iv, 1858, pp. 51, 59; (159) vol. iv, 1859, p. 222; (168) vol. iv, 1859, p. 270; (189) vol. iv, 1860, p. 347; (203) vol. v, 1861, pp. 56, 66, 71, 96, 100; (213) vol. v, 1862, p. 196; (221) vol

Unio rubiginosus—Continued.

v, 1863, pp. 416, 417, 432; (242) vol. vi, 1866, p. 27; Obs. Gen. Unio, (21) vol. i, pp. 22, 26, 27, 34, 41, 52, 143, 150, pl. viii, f. 10; (27) vol. ii, pp. 32, 125, 147; (44) vol. iii, pp. 69, 75; (56) vol. iv, p. 77; (83) vol. v, p. 31; P. A. P. S., (66) vol. v, 1851, p. 192; (150) vol. vi, pp. 51, 59; (170) vol. vii, pp. 40, 86; (205) vol. viii, pp. 29, 60, 70, 81, 100, 104; (215) vol. ix, p. 18; (222) vol. x, pp. 52, 53, 66; (244) vol. xi, p. 31.

U. rubra.

T. A. P. S., (27) vol. vi, 1838, p. 125; Obs. Gen. Unio, (29) vol. ii, p. 125.

U. rudus.

P. A. N. S., (158) vol. xi, p. 187; J. A. N. S., (168) vol. iv, 1859, p. 266, pl. xliii, f. 146; Obs. Gen. Unio, (170) vol. vii, p. 84, pl. xliii, f. 146.

U. rufofuscus.

P. A. N. S., (234) vol. xvii, 1865, p. 76; J. A. N. S., (257) vol. vi, 1868, p. 282, pl. xxxix, f. 96; Obs. Gen. Unio, (259) vol. xii, p. 42, pl. xxxix, f. 96.

U. rufus.

P. A. N. S., (129) vol. ix, 1857, p. 171; J. A. N. S., (148) vol. iv, 1858, p. 85, pl. xvii, f. 65; Obs. Gen. Unio, (150) vol. vi, p. 85, pl. xvii, f. 65.

U. rufusculus.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 258, pl., xiv, f. 7; J. A. N. S., (148) vol. iv, 1858, pp. 64, 85; Obs. Gen. Unio, (83) vol. v, p. 14, pl. xiv, f. 7; (150) vol. vi, pp. 64, 85.

U. rugatus.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. rugososulcatus.

J. A. N. S., (257) vol. vi, 1868, p. 266, pl. xxxiv, f. 81; Obs. Gen. Unio, (259) vol. xii, p. 26, pl. xxxiv, f. 81.

U. rugosus.

T. A. P. S., (12) vol. iii, 1829, p. 418; (27) vol. vi, 1838, pp. 121, 123, 129, 134; Obs. Gen. Unio, (21) vol. i, p. 32; (29) vol. ii, pp. 121, 123, 129, 134.

U. Rumphianus.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 276, pl. xxii, f. 34; J. A. N. S., (148) vol. iv, 1858, p. 66; Obs. Gen. Unio, (83) vol. v, p. 32, pl. xxii, f. 34; (150) vol. vi, p. 66.

U. rusticus.

P. A. N. S., (110) vol. viii, 1856, p. 93; J. A. N. S., (133) vol. iii, 1857, pp. 294, 296, pl. xxv, f. 7; Obs. Gen. Unio, (150) vol. vi, pp. 14, 16, pl. xxv, f. 7.

U. Rutersvillensis.

P. A. N. S., (154) vol. xi, 1859, p. 155; J. A. N. S., (189) vol. iv, 1860, p. 356, pl. lx, f. 181; (242) vol. vi, 1866, p. 27; Obs. Gen. Unio, (205) vol. viii, p. 38, pl. lx, f. 181; (244) vol. xi, p. 31.

16) vol. viii, 1856, p. 262; J. A. N. vol. iv, 1858, p. 46, pl. v, f. 4; (148) 858, pp. 59, 63, pl. ix, f. 41; (159) 859, p. 202; (189) vol. iv, 1860, p. Gen. Unio, (150) vol. vi, pp. 46, v, f. 4; pl. ix, f. 41; (170) vol. vii, 5) vol. viii, p. 10.

7) vol. vi, 1838, p. 131; Obs. Gen.) vol. ii, p. 131.

3) vol. —, 1852, p. 252; T. A. P. S., , 1852, p. 277, pl. xxii, f. 35; J. A. 8) vol. iv, 1858, pp. 65, 68; Obs. o, (83) vol. v, p. 33, pl. xxii, f. 35; vi, pp. 65, 68.

10) vol. viii, 1856, p. 93; J. A. N. vol. iii, 1857, p. 298, pl. xxvi, f. 12; iv, 1859, p. 243; Obs. Gen. Unio, vi. p. 18, pl. xxvi, f. 12; (170) vol. .

84) vol. xii, 1860, p. 305; J. A. N. vol. iv, 1860, p. 370, pl. lxv, f. 195; . Unio, (205) vol. viii, p. 52.

156) vol. xi, 1859, p. 170; J. A. N. vol. iv, 1860, pp. 332, 336, 337, 338, 57; Obs. Gen. Unio, (205) vol. viii, , 19, 20, pl. lii, f. 157.

200) vol. xiii, 1861, p. 392; J. A. N. vol. v, 1862, p. 192, pl. xxv, f. 261; . Unio, (215) vol. ix, p. 14, pl. xxv,

273) vol. viii, 1874, p. 20, pl. vi, f. Gen. Unio, (275) vol. xiii, f. 17.

9) vol. ii, 1841, p. 30; T. A. P. S., viii, 1841, p. 233, pl. xxi, f. 47; (79) 852, p. 276; Obs. Gen. Unio, (44) 71, pl. xxi, f. 47; (83) vol. v, p. 32.

43) vol. x, 1858, p. 166; J. A. N. S., iv, 1859, p. 216, pl. xxvii, f. 96; . Unio, (170) vol. vii, p. 34, pl. xxvii,

3) vol. v, 1852, p. 252; T. A. P. S., x, 1852, p. 265, pl. xvii. f. 19; Obs. io, (83) vol. v, p. 21, pl. xvii, f. 19. s.

(129) vol. ix, 1857, p. 169; J. A. N. ol. iv, 1858, p. 81, pl. xvi, f. 61; (189) 860, p. 330; (242) vol. vi. 1866, pp. bs. Gen. Unio, (150) vol. vi, p. 81, 61; (205) vol. viii, p. 12; (244) vol. , 27.

27) vol. vi, 1838, pp. 134, 151; Obs. io, (29) vol. ii, pp. 134, 151.

12) vol. iii, 1829, pp. 409, 412, 414, (15) vol. iv, 1830, p. 93; (20) vol. v,

Unio scalenius—Continued.

1832, pp. 40, 72, 89; (27) vol. vi, 1838, p. 126, (79) vol. x, 1852, p. 279; Obs. Gen. Unio, (21) vol. i, pp. 23, 26, 28, 32, 56, 103, 152, 184, 201; (29) vol. ii, p. 126; (83) vol. v, p. 35.

U. Scamnatus.

J. A. N. S., (133) vol. iii, 1857, p. 302; (168) vol. iv, 1859, pp. 259, 267; Obs. Gen. Unio, (150) vol. vi, p. 22; (170) vol. vii, pp. 77, 85.

U. Schoolcraftensis.

T. A. P. S., (20) vol. v, 1832, p. 37, pl. iii, f. 9; (27) vol. vi, 1838, pp. 123, 147; (79) vol. x, 1852, p. 281; J. A. N. S., (213) vol. v, 1862, p. 196; Obs. Gen. Unio, (21) vol. i, p. 149, pl. iii f. 9; (29) vol. ii, pp. 123, 141; (83) vol. v, p. 37; (215) vol. ix, p. 18.

U. scitulus.

P. A. N. S., (177) vol. xii, 1860, p. 93; J. A. N. S., (189) vol. iv, 1860, pp. 342, 343, 350, pl. lv, f. 167; Obs. Gen. Unio, (205) vol. viii, pp. 24, 25, 32, pl. xxxv, f. 167.

U. scobinatus.

P. A. N. S., (110) vol. viii, 1856, p. 93; J. A. N. S., (133) vol. iii, 1857, p. 299, pl. xxvi, f. 13; (168) vol. iv, 1859, p. 251; Obs. Gen. Unio, (150) vol. vi, p. 19, pl. xxvi, f. 13; (170) vol. vii, p. 69.

U. securis.

T. A. P. S., (12) vol. iii, 1829, pp. 409, 411, 420, 428, 437; (15) vol. iv, 1831, p. 106; (27) vol. vi, 1836, p. 55; 1838, pp., 124, 147; (43) vol. viii, 1841, pp. 231, 248; (79) vol. x, 1852, p. 267; J. A. N. S., (147) vol. iv, 1858, p. 47, pl. v, f. 6; (221) vol. v, 1863, pp. 431, 440; Obs. Gen. Unio, (21) vol. i, pp. 23, 25, 34, 42, 51, 116; (29) vol. ii, pp. 55, 124, 147; (44) vol. iii, pp. 69, 86; (83) vol. v, p. 23; (150) vol. vi, p. 47, pl. v, f. 6; (222) vol. x, pp. 67, 76.

U. semirugata.

T. A. P. S., (12) vol. iii. 1829, p. 423; (20) vol. v, 1833, pp. 89, 90; (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (21) vol. i, pp. 37, 201, 202; 29) vol. ii, p. 130.

U. Shanghaiensis.

P. A. N. S., (152) vol. xi, 1859, p. 153; J. A. N. S., (168) vol. iv, 1859, p. 242, pl. xxxvi, f. 121; Obs. Gen. Unio, (170) vol. vii, p. 60, pl. xxxvi, f. 121.

U. Shepardianus.

T. A. P. S., (20) vol. v, 1833, p. 95, pl. xiii, f. 38; (27) vol. vi, 1834, p. 8; 1836, p. 38; 1838, pp. 131, 147; (54) vol. ix, 1843, p. 280; P. A. N. S., (135) vol. x, 1858, p. 13; J. A. N. S., (221) vol. v, 1863, p. 415; Obs. Gen. Unio, (21) vol. i, p. 207, pl. xiii, f. 38; (29) vol. ii, pp. 8, 38, 131, 147; (56) vol. iv, p. 280; (222) vol. x, p. 51.

U. Showalterii.

P. A. N. S., (186) vol. xii, 1860, p. 307; J. A. N. S., (203) vol. v, 1861, p. 73, pl. viii, f. 223; Obs. Gen. Unio, (205) vol. viii, p. 77, pl. viii, f. 223.

U. Shurtleffianus.

P. A. N. S., (110) vol. viii, 1856, p. 94; J. A. N. S., (133) vol. iii, 1857, pp. 302, 303, pl. xxvii, f. 17; (220) vol. v, 1863, p. 298; Obs. Gen. Unio, (150) vol. vi, p. 22, pl. xxvii, f. 17; (222) vol. x, p. 34.

Unio Shuttleworthii.

P. A. N. S., (110) vol. viii, 1856, p. 94; J. A. N. S., (133) vol. iii, 1857, p. 304, pl. xxviii, f. 19; Obs. Gen. Unio, (150) vol. vi, p. 24, pl. xxv, f. 19.

U. Siamensis.

J. A. N. S., (257) vol. vi, 1868, p. 279, pl. xxxviii, f. 93; Obs. Gen. Unio, (259) vol. xii, p. 39, pl. xxxviii, f. 93.

U. Sikkimensis.

P. A. N. S., (152) vol. xi, 1859, p. 151; J. A. N. S., (168) vol. iv, 1859, p. 251, pl. xxxix, f. 131; Obs. Gen. Unio, (170) vol. vii, p. 69, pl. xxxix, f. 131.

U. siliquoideus.

T. A. P. S., (12) vol. iii, 1829, pp. 407, 409, 411, 414, 415, 419; (20) vol. v, 1833, p. 91; 1834, p. 101; (27) vol. vi, 1834, p. 15; 1836, p. 34; 1838, p. 127; Obs. Gen. Unio, (21) vol. i, pp. 21, 23, 25, 28, 29, 33, 203, 213; (29) vol. ii, pp. 15, 34, 127.

U. similis.

P. A. N. S., (129) vol. ix, 1857, p. 169; J. A. N. S., (148) vol. iv, 1858, p. 91, pl. xix, f. 71; (159) vol. iv, 1859, p. 195; Obs. Gen. Unio, (150) vol. vi, p. 91, pl. xix, f. 71; (170) vol. vii, p. 13.

U. simplex.

T. A. P. S., (55) vol. x, 1845, pp. 73, 76, pl. v, f. 15; Obs. Gen. Unio, (56) vol. iv, pp. 73, 76, pl. v, f. 15.

U. simulans.

J. A. N. S., (273) vol. viii, 1874, pl. v, f. 15; Obs. Gen. Unio, (275) vol. xiii, p. 22, pl. v, f. 15.

U. simus.

T. A. P. S., (27) vol. vi, 1836, p. 26, pl. viii, f. 20; 1838, pp. 129, 147; J. A. N. S., (202) vol. v, 1861, p. 81; Obs. Gen. Unio, (29) vol. ii, pp. 26, 129, 147, pl. viii, f. 20; (205) vol. viii, p. 85.

U. sintoxia.

T. A. P. S., (27) vol. vi, 1838, pp. 125, 144; Obs. Gen. Unio, (29) vol. ii, pp. 125, 144.

U. sinuata.

T. A. P. S., (12) vol. iii, 1829, p. 421; (20) vol. v, 1833, p. 86; (27) vol. vi, 1838, pp. 128, 134, 136, 144; Obs. Gen. Unio, (21) vol. i, pp. 35, 198; (29) vol. ii, pp. 128, 134, 136, 144.

U. Sloatianus.

P. A. P. S., (35) vol. i, 1840, p. 287; T. A. P. S., (43) vol. viii, 1840, p. 217, pl. xvi, f. 33; J. A. N. S., (221) vol. v, 1863, p. 408; Obs. Gen. Unio, (44) vol. iii, p. 55, pl. xvi, f. 33; (222) vol. x, p. 44.

U. Smithii.

T. A. P. S., (27) vol. vi, 1838, pp. 128, 148; Obs. Gen. Unio, (29) vol. ii, pp. 128, 148.

U. Solandri.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. soleniformis.

T. A. P. S., (15) vol. iv, 1830, pp. 75, 87, pl. x, f. 17, 1831, p. 106; (20) vol. v, 1832, p. 37; (27) vol. vi, 1838, pp. 128, 134; J. A. N. S., (221) vol. v, 1863, p. 422; Obs. Gen. Unio, (21) vol. i, pp. 85, 97, 116, 149, pl. x, f. 17; (29) vol. ii, pp. 128, 134; (222) vol. x, p. 58.

Unio Soladoensis.

J. A. N. S., (242) vol. vi, 1866, p. [illegible]; Obs. Gen. Unio, (244) vol. xi, p. 12.

U. solenoides.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. solidus.

T. A. P. S., (27) vol. vi, 1834, p. 13, pl. v, f. 13; 1838, pp. 125, 147; J. A. N. S., (203) vol. v, 1861, p. 73; (221) vol. v, 1863, p. 429; (242) vol. vi, 1866, p. 27; Obs. Gen. Unio, (29) vol. ii, pp. 13, 125, 147, pl. v, f. 13; (205) vol. viii, p. 77; (222) vol. x, p. 65; (244) vol. xi, p. 31.

U. Solisiana.

T. A. P. S., (27) vol. vi, 1838, p. 131; Obs. Gen. Unio, (29) vol. ii, p. 131.

U. sordidus.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 254, pl. xii, f. 1; J. A. N. S., (189) vol. iv, 1860, p. 332; Obs. Gen. Unio, (188) vol. v, p. 10, pl. xii, f. 1; (205) vol. viii, p. 14.

U. Sowerbianus.

T. A. P. S., (20) vol. v, 1833, p. 68, pl. x, f. 28; (27) vol. vi, 1838, pp. 125, 147; Obs. Gen. Unio, (21) vol. i, p. 180, pl. x, f. 28; (29) vol. ii, pp. 125, 147.

U. spadiceus.

P. A. N. S., (123) vol. ix, 1857, p. 86; J. A. N. S., (189) vol. iv, 1860, p. 330; (203) vol. v, 1861, p. 55, pl. i, f. 201; Obs. Gen. Unio, (205) vol. viii, pp. 12, 29, pl. i, f. 201.

U. sparsus.

P. A. P. S., (40) vol. ii, 1841, p. 82; T. A. P. S., (43) vol. viii, 1841, p. 242; (79) vol. x, 1852, p. 277; Obs. Gen. Unio, (44) vol. iii, p. 80, pl. xxv, f. 58; (83) vol. v, p. 33.

U. sparus.

J. A. N. S., (258) vol. vi, 1868, p. 306, pl. xlv, f. 119; Obs. Gen. Unio, (259) vol. xii, p. 66, pl. xlvii, f. 119.

U. spatulatus.

T. A. P. S., (55) vol. x, 1845, p. 80, pl. viii, f. [illegible] J. A. N. S., (147) vol. iv, 1858, p. 47, pl. [illegible] 9; (221) vol. v, 1863, p. 424; Obs. Gen. U[illegible] (56) vol. iv, p. 80, pl. viii, f. 22; (150) vol. [illegible] p. 47, pl. v, f. 9; (222) vol. x, p. 60.

U. speciosus.

J. A. N. S., (213) vol. v, 1862, p. 207, pl. xxx[illegible] 276; Obs. Gen. Unio, (215) vol. ix, p. 29, [illegible] xxxi, f. 276.

U. sphæricus.

J. A. N. S., (258) vol. vi, 1868, p. 319, pl. li, f. [illegible] Obs. Gen. Unio, (259) vol. xii, p. 79, pl. [illegible] f. 132.

U. Spillmanii.

P. A. N. S., (192) vol. xiii, 1861, p. 39; J. A. N. S., (203) vol. v, 1861, p. 98, pl. xv, f. 246; Obs. Gen. Unio, (205) vol. viii, p. 102, pl. xv, f. [illegible]

U. spinosus.

T. A. P. S., (27) vol. vi. 1836, pp. 57, 71, pl. xv[illegible] 50; 1838, pp. 119, 147, 124; P. A. N. S., ([illegible] vol. ix, 1857, p. 101; (135) vol. x, 1858, p. [illegible] J. A. N. S., (168) vol. iv, 1859, p. 244; ([illegible] vol. v, 1863, p. 413; Obs. Gen. Unio, (29) [illegible] ii, pp. 57, 71, 119, 124, 147, pl. xvi, f. 50; ([illegible] vol. vii, p. 62; (222) vol. x, p. 49.

151) vol. xi, 1859, p. 112; J. A. N. S., . iv, 1859, p. 208, pl. xxv, f. 89; Obs. io, (170) vol. vii, p. 26, pl. xxv, f. 89.

27) vol. vi, 1836, p. 70, pl. xix, f. 61; . 126, 147; J. A. N. S., (221) vol. v, 14; Obs. Gen. Unio, (29) vol. ii, pp. 47, pl. xix, f. 61; (222) vol. x, p. 50.

12) vol. iii, 1829, p. 425; (20) vol. v, 92; (27) vol. vi, 1838, p. 129; Obs. io, (21) vol. i, pp. 39, 204; (29) vol.

242) vol. vi, 1866, p. 22, pl. vii, f. 20; n. Unio, (244) vol. xi, p. 26, pl. vii, f.

200) vol. xiii, 1861, p. 391; J. A. N. vol. v, 1862, p. 200, pl. xxviii, f. 269; n. Unio, (215) vol. ix, p. 22, pl. 269.

196) vol. xii, 1861, p. 59; J. A. N. S., . v, 1861, p. 71, pl. viii, f. 221; Obs. io, (205) vol. viii, p. 75, pl. viii, f.

(15) vol. iv, 1830, p. 77, pl. vii, f. 8; vi, 1838, pp. 123, 147; Obs. Gen. 1) vol. i, p. 87, pl. vii, f. 8; (29) vol. 23, 147.

(27) vol. vi, 1838, p. 144; Obs. Gen. 9) vol. ii, p. 144.

(273) vol. viii, 1874, p. 22, pl. vii, f. . Gen. Unio, (275) vol. xiii, p. 26, pl. ,

(93) vol v, 1852, p. 252; T. A. P. S., x, 1852, p. 278, pl. xxiii, f. 36; J. , (263) vol. v, 1861, p. 65; (242) vol. p. 48; Obs. Gen. Unio, (83) vol. v, p. iii, f. 36; (205) vol. viii, p. 69; (244) . 52.

(242) vol. vi, 1866, p. 26; Obs. Gen. 44) vol. xi, p. 30.

(35) vol. i, 1840, p. 286; T. A. P. S., viii, 1840, p. 195, pl. viii, f. 5; J. A. 48) vol. iv, 1858, p. 90; (159) vol. iv, 195; Obs. Gen. Unio, (44) vol. iii, p.) vol. vi, p. 90; (170) vol. vii, p. 11.

27) vol. vi, 1838, pp. 133, 147; (43) vol. 9, p. 200; (54) vol. ix, 1843, p. 282; (55) 845, p. 79; J. A. N. S., (159) vol. iv, 223, pl. xxx, f. 106; Obs. Gen. Unio, . ii, pp. 133, 147; (44) vol. iii, p. 38; . iv, pp. 79, 262; (170) vol. vii, p. 41, f. 106.

Unio Strebelii.

J. A. N. S., (258) vol. vi, 1868, p. 318, pl. li, f. 131; Obs. Gen. Unio, (259) vol. xii, p. 78, pl. li, f. 131.

U. striatulus.

P. A. N. S., (123) vol. ix, 1857, p. 86; J. A. N. S., (203) vol. v, 1861, p. 55, pl. ii, f. 202; (221) vol. v, 1863, p. 421; Obs. Gen. Unio, (205) vol. viii, p. 59, pl. ii, f. 202; (222) vol. x, p. 57.

U. striatus.

T. A. P. S., (27) vol. vi, 1838, p. 144; (43) vol. viii, 1840, p. 203, pl. xii, f. 16; P. A. P. S., (35) vol. i, 1840, p. 287; J. A. N. S., (203) vol. v, 1861, p. 82; (221) vol. v, 1863, p. 418; Obs. Gen. Unio, (29) vol. ii, p. 144; (44) vol. iii, p. 41, pl. xii, f. 16; (205) vol. viii, p. 86; (222) vol. x, p. 54.

U. strigosus.

P. A. P. S., (35) vol. i, 1840, p. 287; T. A. P. S., (43) vol. viii, 1840, p. 198, pl. ix, f. 9; (79) vol. x, 1852, p. 256; J. A. N. S., (159) vol. iv, 1859, p. 215; (221) vol. v, 1863, p. 411; Obs. Gen. Unio, (44) vol. iii, p. 36, pl. ix, f. 9; (83) vol. v, p. 12; (170) vol. vii, p. 33; (222) vol. x, p. 47.

U. strumosus.

J. A. N. S., (274) vol. viii, 1874, p. 57, pl. xix, f. 55; Obs. Gen. Unio, (275) vol. xiii, p. 61, pl. xix, f. 55.

U. suavidicus.

P. A. N. S., (110) vol. viii, 1856, p. 95; J. A. N. S., (133) vol. iii, 1857, p. 309, pl. xxix, f. 24; Obs. Gen. Unio, (150) vol. vi, p. 29, pl. xxix, f. 24.

U. subangulatus.

P. A. P. S., (35) vol. i, 1840, p. 287; T. A. P. S., (43) vol. viii, 1840, p. 209, pl. xiii, f. 23; J. A. N. S., (147) vol. iv, 1858, p. 50, pl. v, f. 39; (168) vol. iv, 1859, p. 259; (221) vol. v, 1863, p. 408; Obs. Gen. Unio, (44) vol. iii, p. 47, pl. xiii, f. 23; (150) vol. vi, p. 50, pl. v, f. 39; (170) vol. vii, p. 77; (222) vol. x, p. 44.

U. subconstrictus.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. subcylindraceus.

J. A. N. S., (274) vol. viii, 1874, p. 58, pl. xx, f. 57; Obs. Gen. Unio, (275) vol. xiii, p. 62, pl. xx, f. 57.

U. subellipsis.

P. A. N. S., (116) vol. viii, 1856, p. 262; J. A. N. S., (148) vol. iv, 1858, pp. 62, 67, 77, pl. x, f. 44; (189) vol. iv, 1860, p. 328; Obs. Gen. Unio, (150) vol. vi, pp. 62, 67, 77, pl. x, f. 44; (205) vol. viii, p. 10.

U. subflavus.

P. A. N. S., (129) vol. ix, 1857, p. 170; J. A. N. S., (148) vol. iv, 1858, p. 90, pl. xix, f. 70; (159) vol. iv, 1859, p. 197; (242) vol. vi, 1866, p. 23; Obs. Gen. Unio, (150) vol. vi, p. 90, pl. xix, f. 70; (170) vol. vii, p. 15; (244) vol. xi, p. 27.

U. subgibbosus.

P. A. N. S., (129) vol. ix, 1857, p. 169; J. A. N. S., (148) vol. iv, 1858, p. 53, pl. vi, f. 36;

Unio subgibbosus—Continued.

(213) vol. v, 1862, p. 204; (221) vol. v, 1863, p. 443; Obs. Gen. Unio, (150) vol. vi, p. 53, pl. vi, f. 36; (215) vol. ix, p. 26; (222) vol. x, p. 79.

U. subglobatus.

J. A. N. S., (273) vol. viii, 1874, p. 7, pl. i, f. 3; Obs. Gen. Unio, (275) vol. xiii, p. 11, pl. i, f. 3.

U. subglobosus.

T. A. P. S., (20) vol. v, 1832, pp. 30, 89, pl. ii, f. 3; (27) vol. vi, 1838, p. 131; Obs. Gen. Unio, (21) vol. i, pp. 142, 201, pl. ii, f. 3.

U. sublatus.

P. A. N. S., (129) vol. ix, 1857, p. 169; J. A. N. S., (148) vol. iv, 1858, p. 82, pl. xvi, f. 62; Obs. Gen. Unio, (150) vol. vi, p. 82, pl. xvi, f. 62.

U. subniger.

P. A. N. S., (129) vol. ix, 1857, p. 172; J. A. N. S., (159) vol. iv, 1859, p. 196, pl. xxii, f. 79; Obs. Gen. Unio, (170) vol. vii, p. 14, pl. xxii, f. 79.

U. subolivaceus.

J. A. N. S., (274) vol. viii, 1874, p. 58, pl. xx, f. 56; Obs. Gen. Unio, (275) vol. xiii, p. 61, pl. xx, f. 56.

U. suborbiculata.

T. A. P. S., (12) vol. iii, 1829, p. 425; (20) vol. v, 1833, pp. 89, 92; (27) vol. v, 1838, p. 131; Obs. Gen. Unio, (21) vol. i, pp. 39, 201, 204; (29) vol. ii, p. 131.

U. subovatus.

T. A. P. S., (15) vol. iv, 1831, p. 118, pl. xviii, f. 46; (27) vol. vi, 1838, pp. 125, 147; Obs. Gen. Unio, (21) vol. i, p. 128, pl. xviii, f. 46; (29) vol. ii, pp. 125, 147.

U. subparallellus.

J. A. N. S., (273) vol. viii, 1874, p. 46, pl. xvi, f. 44; Obs. Gen. Unio, (275) vol. xiii, p. 50, pl. xvi, f. 44.

U. subrostratus.

T. A. P. S., (27) vol. vi, 1838, pp. 132, 133; Obs. Gen. Unio, (29) vol. ii, pp. 132, 133.

U. subrotundus.

T. A. P. S., (15) vol. iv, 1831, p. 117, pl. xviii, f. 45; (20) vol. v, 1832, pp. 35, 99; (27) vol. vi, 1838, pp. 131, 144, 147; (43) vol. viii, 1840, pp. 196, 210; J. A. N. S., (221) vol. v, 1863, pp. 417, 427, 432; Obs. Gen. Unio, (21) vol. i, pp. 127, 147, 211, pl. xviii, f. 45; (29) vol. ii, pp. 131, 144, 147; (44) vol. iii, pp. 34, 48; (222) vol. x, pp. 53, 63, 66.

U. subsquamosus.

J. A. N. S., (273) vol. viii, 1874, p. 47, pl. xvi, f. 45; Obs. Gen. Unio, (275) vol. xiii, p. 51, pl. xvi, f. 45.

U. substriatus.

P. A. N. S., (110) vol. viii, 1856, p. 93; J. A. N. S., (133) vol. iii, p. 300, pl. xxvi, f. 14; Obs. Gen. Unio, (150) vol. vi, p. 20, pl. xxvi, f. 14.

U. subtentus.

T. A. P. S., (12) vol. iii, 1829; pp. 409, 412, 417; (20) vol. v, 1833, p. 63; (27) vol. vi, 1838, pp. 122, 147; (43) vol. viii, 1840, p. 202; Obs. Gen. Unio, (21) vol. i, pp. 23, 26, 31, 175; (29) vol. ii, pp. 122, 147; (44) vol. iii, p. 40.

U. subtetragonus.

T. A. P. S., (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (29) vol. ii, p. 130.

Unio succiatus.

P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. (79) vol. x, 1852, p. 275, pl. xxi, f. 21; O[illegible] Gen. Unio, (83) vol. v, p. 31, pl. xxi, f. [illegible] (205) vol. viii, p. 27; J. A. N. S., (189) [illegible] iv, 1860, p. 345.

U. sulcus.

P. A. N. S., (129) vol. ix, 1857, p. 170; J. A. [illegible] S., (159) vol. iv, 1859, p. 194, pl. xxi, f. [illegible] (274) vol. viii, 1874, p. 60, pl. xxi, f. [illegible] Obs. Gen. Unio, (170) vol. vii, p. 12, [illegible] xxi, f. 77; (275) vol. xiii, p. 73, pl. xxi, [illegible]

U. sulcatus.

T. A. P. S., (12) vol. iii, 1829, pp. 409, 411, [illegible] 430, pl. viii, f. 12; (15) vol. iv, 1831; [illegible] 117, 120; (20) vol. v, 1835, p. 35; (27) [illegible] vi, 1836, p. 50; 1838, pp. 126, 147; (43) [illegible] viii, 1841, p. 231; J. A. N. S., (213) vol. [illegible] 1862, p. 193; (221) vol. v, 1863, p. 442; Ob[illegible] Gen. Unio, (21) vol. i, pp. 23, 25, 34, [illegible] 127, 130, 147; (29) vol. ii, pp. 50, 126, 147; (44) vol. iii, p. 69; (215) vol. ix, p. 15; (222) vol. x, p. 78.

U. sulcidens.

T. A. P. S., (12) vol. iii, 1829, pp. 416, 434; (20) vol. v, 1833, p. 90; (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (21) vol. i, pp. 30, 38, 206; (29) vol. ii, p. 130.

U. Sumatrensis.

P. A. N. S., (152) vol. xi, 1859, p. 153; J. A. N. S., (168) vol. iv, 1859, p. 239, pl. xxxiv, f. 11; (242) vol. vi, 1866, p. 63; Obs. Gen. Unio, (170) vol. vii, p. 57, pl. xxxiv, f. 118; (244) vol. xi, p. 67.

U. superbus.

T. A. P. S., (54) vol. ix, 1843, p. 281, pl. xiii, f. [illegible] J. A. N. S., (133) vol. iii, 1857, pp. 289, [illegible] 309; Obs. Gen. Unio, (56) vol. iv, p. 28[illegible] xiii, f. 11; (150) vol. vi, pp. 9, 13, 29.

U. symmetricus.

T. A. P. S., (55) vol. x, 1845, p. 73, pl. iv, f. [illegible] J. A. N. S., (148) vol. iv, 1858, p. 76; [illegible] Gen. Unio, (56) vol. iv, p. 73, pl. iv, f. [illegible] (150) vol. vi, p. 76.

U. Syriacus.

J. A. N. S., (242) vol. vi, 1866, p. 56, pl. xi[illegible] 53; Obs. Gen. Unio, (244) vol. xi, p. 60, [illegible] xix, f. 53.

U. syrmatophorus.

T. A. P. S., (27) vol. vi, 1838, pp. 121, 148; [illegible] Gen. Unio, (29) vol. ii, pp. 121, 148.

U. tæniatus.

T. A. P. S., (27) vol. vi, 1838, pp. 127, 147; [illegible] Gen. Unio, (29) vol. ii, pp. 127, 147.

U. Taitianus.

T. A. P. S., (20) vol. v, 1832, p. 39, pl. iv, f. [illegible] (27) vol. vi, 1838, pp. 126, 147; Obs. G[illegible] Unio, (21) vol. i, p. 39, pl. iv, f. 11; (29) [illegible] ii, pp. 126, 147.

U. Tampicoensis.

T. A. P. S., (27) vol. vi, 1836, p. 24, pl. vii, f. [illegible] (27) vol. vi, 1838, pp. 126, 147; J. A. N. [illegible] (133) vol. iii, 1857, pp. 312, 315; Obs. [illegible] Unio, (29) vol. ii, pp. 24, 126, 147, pl. vi[illegible] 18; (150) vol. vi, pp. 32, 35.

Tappanianus.

T. A. P. S., (27) vol. vi, 1836, pp. 62, 75, pl. xvii, f. 55; 1838, pp. 133, 147; J. A. N. S., (242) vol. vi, 1866, p. 8; (274) vol. viii, 1874, pp. 67, 69, pl. xxi, f. 14; Obs. Gen. Unio, (29) vol. ii, pp. 62, 75, pl. xvii, f. 55; 1838, pp. 133, 147; (244) vol. xi, p. 12; (275) vol. xiii, pp. 71, 73, pl. xxi, f. 14.

Tawoyensis.

J. A. N. S., (133) vol. iii, 1857, pp. 292, 294; Obs. Gen. Unio, (150) vol. vi, pp. 12, 14.

Tecumatensis.

T. A. P. S., (39) vol. ii, 1841, p. 30; T. A. P. S., (43) vol. viii, 1841, p. 234, pl. xxi, f. 48; J. A. N. S., (189) vol. iv, 1860, p. 370; Obs. Gen. Unio, (44) vol. iii, p. 72, pl. xxi, f. 48; (205) vol. viii, p. 52.

Tellicoensis.

J. A. N. S., (273) vol. viii. 1874, p. 31, pl. x, f. 28; Obs. Gen. Unio, (275) vol. xiii, p. 35, pl. x, f. 28.

tenebricus.

T. A. N. S., (129) vol. ix, 1857, p. 171; J. A. N. S., (148) vol. iv, 1858, p. 83, pl. xvii, f. 63; Obs. Gen. Unio, (150) vol. vi, p. 83, pl. xvii, f. 63.

tenebrosus.

T. A. P. S., (27) vol. vi, 1838, p. 133; Obs. Gen. Unio, (29) vol. ii, p. 133.

teneltus.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

tener.

T. A. P. S., (35) vol. i, 1840, p. 286; T. A. P. S., (43) vol. viii, 1840, p. 198, pl. x, f. 10; J. A. N. S., (189) vol. iv, 1860, pp. 346, 353; Obs. Gen. Unio, (44) vol. iii, p. 36, pl. x, f. 10; (205) vol. viii, pp. 28, 35.

terrus.

T. A. P. S., (27) vol. vi, 1838, pp. 133, 147; J. A. N. S., (221) vol. v, 1863, p. 415; Obs. Gen. Unio, (29) vol. ii, pp. 133, 147; (222) vol. x, p. 51.

tennesseensis.

T. A. P. S., (35) vol. i, 1840, p. 288; T. A. P. S., (43) vol. viii, 1840, p. 199, pl. x, f. 11; Obs. Gen. Unio, (44) vol. iii, p. 37, pl. x, f. 11.

texuis.

T. A. P. S., (27) vol. vi, 1838, p. 136; Obs. Gen. Unio, (29) vol. ii, p. 136.

tenuissimus.

T. A. P. S., (27) vol. vi, 1838, pp. 133, 147; (43) vol. viii, 1841, p. 231; J. A. N. S., (221) vol. v, 1863, p. 441; Obs. Gen. Unio, (29) vol. ii, pp. 133, 147; (44) vol. iii, p. 69; (222) vol. x, p. 77.

terra.

T. A. P. S., (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (29) vol. ii, p. 132.

terrenus.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

texasensis.

P. A. N. S., (200) vol. xiii, 1861, p. 392; J. A. N. S., (242) vol. vi, 1866, p. 40, pl. xv, f. 39; Obs. Gen. Unio, (244) vol. xi, p. 44, pl. xv, f. 39.

Unio tetragona.

J. A. N. S., (242) vol. vi, 1866, p. 25; Obs. Gen. Unio, (244) vol. xi, p. 29.

U. tetralasmus.

T. A. P. S., (27) vol. vi, 1838, pp. 129, 147; (55) vol. x, 1845, p. 74; Obs. Gen. Unio, (29) vol. ii, pp. 129, 147; (56) vol. iv, p. 74.

U. tetricus.

P. A. N. S., (129) vol. ix, 1857, p. 170; J. A. N. S., (159) vol. iv, 1859, pp. 195, 199, pl. xxii, f. 78; Obs. Gen. Unio, (170) vol. vii, pp. 13, 17, pl. xxii, f. 78.

U. Texasensis.

P. A. N. S., (121) vol. ix, 1857, p. 84; J. A. N. S., (189) vol. iv, 1860, pp. 357, 359, 362, pl. lxi, f. 184; (213) vol. v, 1862, p. 205; Obs. Gen. Unio, (205) vol. viii, pp. 39, 41, 44, pl. lxi, f. 184; (215) vol. ix, p. 27.

U. Thorntonii.

P. A. N. S., (120) vol. iv, 1857, p. 83; J. A. N. S., (242) vol. vi, 1866, pp. 38, 39, 40; Obs. Gen. Unio, (244) vol. xi, pp. 42, 43, 44, pl. xiv, f. 36.

U. Thwaitsii.

P. A. N. S., (152) vol. xi, 1859, p. 452; J. A. N. S., (168) vol. iv, 1859, p. 246, pl. xxxvii, f. 125; Obs. Gen. Unio, (170) vol. vii, p. 64, pl. xxxvii, f. 125.

U. Tigridis.

J. A. N. S., (242) vol. vi, 1866, p. 52; Obs. Gen. Unio, (244) vol. xi, p. 56.

U. Tigris.

T. A. P. S., (27) vol. vi, 1838, pp. 126, 145; J. A. N. S., (133) vol. iii, 1857, p. 296; (242) vol. vi, 1866, pp. 52, 62; Obs. Gen. Unio, (29) vol. ii, pp. 126, 145; (150) vol. vi, p. 16; (244) vol. xi, pp. 56, 66.

U. Topekaensis.

J. A. N. S., (258) vol. vi, 1868, p. 313, pl. xlix, f. 126; Obs. Gen. Unio, (259) vol. xii, p. 73, pl. xlix, f. 126.

U. torsus.

T. A. P. S., (12) vol. iii, 1829, pp. 409, 412, 418, 434; (15) vol. iv, 1830, p. 77; (20) vol. v, 1833, p. 88; (27) vol. vi, 1838, p. 131; Obs. Gen. Unio, (21) vol. i, pp. 23, 26, 32, 48, 87, 200; (29) vol. ii, p. 131.

U. tortivus.

P. A. P. S., (35) vol. i, 1840, p. 287; T. A. P. S., (213) vol. viii, 1840, p. 204, pl. xii, f. 17; J. A. N. S., (159) vol. iv, 1859, p. 196, 199, 214; (221) vol. v, 1863, p. 409; (274) vol. viii, 1874, p. 69, pl. xxi, f. 12; Obs. Gen. Unio, (44) vol. iii, p. 42, pl. xii, f. 17; (170) vol. vii, pp. 14, 17, 32; (222) vol. x, p. 45; (275) vol. xiii, p. 73, pl. xxi, f. 12.

U. tortuosus.

P. A. N. S., (234) vol. xvii, 1865, p. 76; J. A. N. S., (257) vol. vi, 1868, p. 287, pl. xxxix, f. 98; Obs. Gen. Unio, (259) vol. xii, p. 46, pl. xxxix, f. 98.

U. torulosa.

T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. trabalis.

T. A. P. S., (27) vol. vi, 1838, p. 126; Obs. Gen. Unio, (29) vol. ii, p. 126.

Unio trapezialis.
J. A. N. S., (220) vol. v, 1863, p. 387; Obs. Gen. Unio, (222) vol. x, p. 23.

U. trapezium.
T. A. P. S., (27) vol. vi, 1838, p. 129; Obs. Gen. Unio, (29) vol. ii, p. 129.

U. trapezoides.
T. A. P. S., (15) vol. iv, 1830, p. 69, pl. iii, f. 1; (20) vol. v, 1833, pp. 87, 96; (27) vol. vi, 1838, pp. 122, 125, 147; J. A. N. S., (133) vol. iii, 1857, p. 315; (203) vol. v, 1861, p. 61; (221) vol. v, 1863, p. 436; Obs. Gen. Unio, (21) vol. i, pp. 79, 199, 208, pl. iii, f. 1; (29) vol. ii, pp. 122, 125, 147; (150) vol. vi, p. 35; (205) vol. viii, p. 65; (222) vol. x, p. 72.

U. Trautwiniana.
J. A. N. S., (168) vol. iv, 1859, p. 267; Obs. Gen. Unio, (170) vol. vii, p. 85.

U. triangularis.
T. A. P. S., (12) vol. iii, 1829, pp. 406, 409, 419, 430, 443; (15) vol. iv, 1830, p. 76; 1831, pp. 112, 116; (20) vol. v, 1832, p. 25; (27) vol. vi, 1836, pp. 50, 55, 72; 1838, pp. 119, 120, 124, 125, 144, 147; (43) vol. viii, 1841, p. 231; J. A. N. S., (147) vol. iv, 1858, p. 48, pl. v, f. 19; (221) vol. v, 1863, pp. 420, 448; (242) vol. vi, 1866, p. 17; Obs. Gen. Unio, (21) vol. i, pp. 20, 23, 26, 33, 44, 57, 86, 122, 126, 137; (29) vol. ii, pp. 50, 55, 72, 119, 120, 124, 125, 126, 144, 147; (44) vol. iii, p. 69; (150) vol. vi, p. 48, pl. v, f. 19; (222) vol. x, pp. 56, 94; (244) vol. x, p. 21.

U. trifidus.
P. A. N. S., (175) vol. xii, 1860, p. 89; J. A. N. S., (220) vol. v, 1863, p. 386, pl. xliv, f. 295; (242) vol. vi, 1866, p. 58; Obs. Gen. Unio, (222) vol. x, p. 22, pl. xliv, f. 295; (244) vol. xi, p. 62.

U. trigonus.
T. A. P. S., (15) vol. iv, 1831, p. 110, pl. xvi, f. 40; (20) vol. v, 1833, p. 69; (27) vol. vi, 1836, pp. 55, 73; 1838, pp. 125, 148; (43) vol. viii, 1841, pp. 212, 231; (55) vol. x, 1845, p. 71; J. A. N. S., (203) vol. v, 1861, p. 91; (213) vol. v, 1862, pp. 197, 199; (221) vol. v. 1863, p. 428; Obs. Gen. Unio, (21) vol. i, pp. 120, 181, pl. xvi, f. 40; (29) vol. ii, pp. 55, 73, 125, 148; (44) vol. iii, pp. 50, 69; (56) vol. iv, p. 71; (205) vol. viii, p. 95; (215) vol. ix, pp. 19, 21; (222) vol. x, p. 64.

U. trinacrus.
P. A. N. S., (196) vol. xiii, 1861, p. 59; J. A. N. S., (203) vol. v, 1861, p. 86, pl. xii, f. 235; Obs. Gen. Unio, (205) vol. viii, p. 90, pl. xii, f. 235; also errata.

U. tripartitus.
J. A. N. S., (242) vol. vi, 1866, p. 57, pl. xix, f. 55; Obs. Gen. Unio, (244) vol. xi, p. 61, pl. xix, f. 55.

U. triqueter.
T. A. P. S., (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144.

U. trirodiatus.
T. A. P. S., (27) vol. vi, 1838, p. 129; Obs. Gen. Unio, (29) vol. ii, p. 129.

U. Troschelianus.
P. A. P. S., (93) vol. v, 1852, p. 252; T. A. P. S., (79) vol. x, 1852, p. 280, pl. xxiii, f. 39; J. A.

Unio Troschelianus—Continued.
N. S., (159) vol. iv, 1859, p. 3
Unio, (83) vol. v, p. 36, pl. xx
vol. vii, p. 38.

U. Troostensis.
T. A. P. S., (20) vol. v, 1833, p. 71,
vol. vi, 1838, pp. 126, 148; (54
p. 278; Obs. Gen. Unio, (21)
x, f. 30; (29) vol. ii, pp. 126, 1
p. 278.

U. Troostii.
J. A. N. S., (242) vol. vi, 1866, p.
Unio., (244) vol. xi, p. 51.

U. trossulus.
T. A. P. S., (54) vol ix, 1843, p. 2
Obs. Gen. Unio., (56) vol. iv
f. 6.

U. truncatus.
T. A. P. S., (15) vol. iv, 1830, p. 9
1838, pp. 124, 126, 134, 144, 1
N. S., (242) vol. vi, 1866, p. 5
Unio, (21) vol. i, p. 103; (29)
126, 134, 144, 148, 151; (244)

U. tuberculatus.
T. A. P. S., (12) vol. iii, 1829, pp
419; (15) vol. iv, 1830, pp. 64,
vol. vi, 1836, p. 56; 1838, pp
(43) vol. viii, 1841, p. 231; P.
vol. v, 1851, pp. 192, 193; J.
vol. v, 1863, p. 425; (242)
27; Obs. Gen. Unio, (21) vo
26, 33, 74, 75, 81, 96; (29) vol
124, 148; (44) vol. iii, p. 69;
61; (244) vol. xi, p. 31.

U. tuberculosa.
T. A. P. S., (12) vol. iii, 1829, p. 4
Unio., (21) vol. i, p. 33.

U. tuberosus.
P. A. P. S., (35) vol. i, 1840, p. 28
(43) vol. viii, 1840, pp. 210, 24
(79) vol. x, 1852, p. 277; Ob
(44) vol. iii, pp. 48, 81, pl.
vol. v, p. 33.

U. tumescens.
T. A. P. S., (55) vol. x, 1845, pp. 71
Obs. Gen. Unio, (56) vol. iv, p
f. 7.

U. tumida.
T. A. P. S., (12) vol. iii, 1829, p.
vi, 1838, p. 132; Obs. Gen. U
pp. 38, 132.

U. tumidulus.
P. A. N. S., (110) vol. viii, 1856,
S., (133) vol. iii. 1857, p. 295
(242) vol. vi, 1866, p. 62; Ob
(150) vol. vi, p. 15, pl. xxv,
xi, p. 66.

U. tumulatus.
T. A. P. S., (27) vol. vi, 1838, pp.
Gen. Unio, (29) vol. ii, pp. 1

U. turgidulus.
P. A. N. S., (136) vol. x, 1858, p
S., (203) vol. v, 1861, p. 62, pl.
vol. v, 1862, p. 193; Obs. Ge
vol. viii, p. 66, pl. v, f. 211
p. 15.

Unio turgidus.

T. A. P. S., (27) vol. vi, 1834, p. 11, pl. v, f. 11; 1838, pp. 123, 148; Obs. Gen. Unio, (29) vol. ii, pp. 11, 123, 148, pl. v, f. 11.

U. Turioni.

T. A. P. S., (27) vol. vi, 1838, p. 132; Obs. Gen. Unio, (29) vol. ii, p. 132.

U. Tuomeyi.

T. A. P. S., (79) vol. x, 1852, p. 256, pl. xiii, f. 4; P. A. P. S., (93) vol. v, 1852, p. 252; J. A. N. S., (148) vol. iv, 1858, pp. 61, 80; (189) vol. iv, 1860, p. 329; (221) vol. v, 1863, p. 444; (242) vol. vi, 1866, p. 21; Obs. Gen. Unio, (83) vol. v, p. 12, pl. xiii, f. 4; (150) vol. vi, pp. 61, 80; (205) vol. viii, p. 11; (222) vol. x, p. 80; (244) vol. xi, p. 25.

U. Tuscombiensis.

J. A. N. S., (273) vol. viii, 1874, p. 11, pl. iii, f. 7; Obs. Gen. Unio, (275) vol. xiii, p. 15, pl. iii, f. 7.

U. Uhareensis.

J. A. N. S., (258) vol. vi, 1868, p. 304, pl. xlvi, f. 116; Obs. Gen. Unio, (259) vol. xii, p. 63, pl. xlvi, f. 116.

U. umbrans.

P. A. N. S., (127) vol. ix, 1857, p. 104; J. A. N. S., (148) vol. iv, 1858, p. 73; Obs. Gen. Unio, (150) vol. vi, p. 73.

U. umbrosus.

P. A. N. S., (110) vol. viii, 1856, p. 95; (119) vol. ix, 1857, p. 32; (127) vol. ix, 1857, p. 104; J. A. N. S., (133) vol. iii, 1857, p. 311, pl. xxx, f. 26; (168) vol. iv, 1859, p. 246; (203) vol. v, 1861, p. 80; (258) vol. vi, 1868, p. 326; Obs. Gen. Unio, (150) vol. vi, p. 31, pl. xxx, f. 26; (176) vol. vii, p. 64; (205) vol. viii, p. 84; (259) vol. xii, p. 86.

undatus.

T. A. P. S., (12) vol. iii, 1829, p. 418; (15) vol. iv, 1831, pp. 111, 118; (20) vol. v, 1833, p. 68; (27) vol. vi, 1834, p. 13; 1838, p. 125; (43) vol. viii, 1840, pp. 216, 221; J. A. N. S., (221) vol. v, 1863, p. 441; Obs. Gen. Unio, (21) vol. i, pp. 32, 121, 128, 200; (29) vol. ii, pp. 13, 125; (44) vol. iii, pp. 54, 69; (222) vol. x, p. 77.

undulatus.

T. A. P. S., (12) vol. iii, 1829 pp. 417, 421; (15) vol. iv, 1830, p. 68; (27) vol. vi, 1838, pp. 123, 124, 125, 148; (55) vol. x, 1845, pp. 68, 70; P. A. P. S., (66) vol. v, 1851, p. 192; P. A. N. S., (135) vol. x, 1858, pp. 13, 14; J. A. N. S., (147) vol. iv, 1858, p. 48, pl. v, f. 22; (221) vol. v, 1863, pp. 417, 443; (242) vol. vi, 1866, p. 27; Obs. Gen. Unio, (21) vol. i, pp. 31, 55, 78; (29) vol. ii, pp. 122, 124, 125, 148; (56) vol. iv, pp. 68, 70; (150) vol. vi, p. 48, pl. v, f. 22; (222) vol. x, pp. 53, 79; (244) vol. xi, p. 31.

U. unicolor.

T. A. P. S., (55) vol. x, 1845, p. 74, pl. iv, f. 12; Obs. Gen. Unio, (56) vol. iv, p. 74.

U. uniformis.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

Unio Urii.

T. A. P. S., (27) vol. vi, 1838, pp. 134, 151; Obs. Gen. Unio, (29) vol. ii, pp. 134, 151.

U. Uruguayensis.

P. A. N. S., (176) vol. xii, 1860, p. 90; J. A. N. S., (220) vol. v, 1863, pp. 382, 388, pl. xlv., f. 298; Obs. Gen. Unio, (222) vol. x, pp. 18, 24, pl. xlv, f. 298.

U. utriculus.

T. A. P. S., (55) vol. x, 1845, p. 69, pl. i, f. 3; Obs. Gen. Unio, (56) vol. iv, p. 69, pl. i, f. 3.

U. validus.

J. A. N. S., (273) vol. viii, 1874, p. 6, pl. i, f. 2; Obs. Gen. Unio, (275) vol. xiii, p. 10, pl. i, f. 2.

U. vallatus.

J. A. N. S., (258) vol. vi, 1868, p. 315, pl. l, f. 128; Obs. Gen. Unio, (259) vol. xii, p. 75, pl. l, f. 128.

U. Vanuxemensis.

T. A. P. S., (27) vol. vi, 1836, pp. 28, 36, pl. xi, f. 31; 1838, pp. 127, 148; (55) vol. x, 1845, p. 69; Obs. Gen. Unio, (29) vol. ii, pp. 28, 36, 127, 148, pl. xi, f. 31; (56) vol. iv, p. 69.

U. Vanuxemii.

J. A. N. S., (148) vol. iv, 1858, p. 83; (203) vol. v, 1861, p. 67; (242) vol. vi, 1866, p. 47; Obs. Gen. Unio, (150) vol. vi, p. 83; (205) vol. viii, p. 71; (244) vol. xi, p. 51.

U. variabilis.

T. A. P. S., (27) vol. vi, 1838, pp. 131, 148; J. A. N. S., (220) vol v, 1863, p 381; Obs. Gen. Unio, (29) vol. ii, pp. 131, 148; (222) vol. x, p. 17.

U. varicosus.

T. A. P. S., (12) vol. iii, 1829, p. 424; (15) vol. iv, 1830, p. 9, pl. xi, f. 20; 1831, p. 107; (20) vol v, 1833, p. 91; (27) vol. vi, 1838, pp. 124, 135, 148; (43) vol. viii, 1841, p. 231; Obs. Gen. Unio, (21) vol. i, pp. 38, 100, 107, 203, pl. xi, f. 20; (29) vol. ii, pp. 124, 135, 148; (44) vol, iii, p. 69.

U. vasus

J. A. N. S., (242) vol. vi, 1866, p. 55; Obs. Gen. Unio, (244) vol. xi, p. 59.

U. Vaughanianus.

T. A. P. S., (27) vol. vi, 1834, p. 5, pl. iii, f. 5; 1838, pp. 133, 148; Obs. Gen. Unio, (29) vol. ii, pp. 5, 133, 148, pl. iii, f. 5.

U. velum.

T. A. P. S., (27) vol. vi, 1838, p. 133; Obs. Gen. Unio, (29) vol. ii, p. 133.

U. ventricosus.

T. A. P. S., (12) vol. iii, 1829, pp. 409, 411, 419, 430; (15) vol. iv, 1831, p. 119; (27) vol. vi, 1838, pp. 125, 126, 148; J. A. N. S., (159) vol. iv, 1859, p. 224, pl. xxx, f. 107; Obs. Gen. Unio, (12) vol. i, pp. 23, 25, 33, 51, 129; (29) vol. ii, pp. 125, 126, 148; (170) vol. vii, p. 42, pl. xxx, f. 107.

U. Venus.

T. A. P. S., (15) vol. iv, p. 118; (27) vol. vi, 1838, p. 144; Obs. Gen. Unio, (29) vol. ii, p. 144;

U. venustus.

T. A. P. S., (27) vol. vi, 1834, p. 4, pl. ii, f. 4; 1838, pp. 127, 148; J. A. N. S., (189) vol iv, 1860, p. 369; Obs. Gen. Unio, (29) vol. ii, pp. 4, 127, 148, pl. ii, f. 4; (205) vol. viii, p. 51.

Unio Veracruzensis.
J. A. N. S., (258) vol. vi, 1868, p. 320, pl. lii, f. 133; Obs. Gen. Unio, (259) vol. xii, p. 80, pl. lii, f. 133.

U. Verreanianus.
P. A. N. S., (110) vol. viii, 1856, p. 94; J. A. N. S., (133) vol. iii, 1857, p. 301, pl. xxvii, f. 16; Obs. Gen. Unio, (150) vol. vi, p. 21, pl. xxvii, f. 16.

U. verrucosus.
T. A. P. S., (12) vol. iii, 1829, pp. 409, 410, 412, 413, 419; (15) vol. iv, 1830, pp. 77, 79; (20) vol. v, 1833, p. 61; (27) vol. vi, 1838, p. 70; 1838, pp. 123, 144, 148; P. A. P. S., (66) vol. v, 1851, p. 192; T. A. P. S., (43) vol. viii, 1841, p. 231; (55) vol. x, 1845. p. 72; J. A. N. S., (221) vol. v, 1863, p. 427; Obs. Gen. Unio, (21) vol. i, pp. 23, 24, 26, 27, 33, 87, 89, 173; (29) vol. ii, pp. 70, 123, 144, 149; (44) vol. iii, p. 69; (56) vol. iv, p. 72; (222) vol. x, p. 63.

U. verrucosus albus.
T. A. P. S., (27) vol. vi, 1838, p. 123; Obs. Gen. Unio, (29) vol. ii, p. 123.

U. verrucosus purpureus.
T. A. P. S., (27) vol. vi, 1838, p. 123; Obs. Gen. Unio, (29) vol. ii, p. 123.

U. verus.
P. A. N. S., (192) vol. xiii, 1861, p. 40; J. A. N. S., (203) vol. v, 1861, p. 83, pl. xi, f. 231; Obs. Gen. Unio, (205) vol. viii, p. 87, pl. xi, f. 231.

U. verutus.
P. A. N. S., (156) vol. xi, 1859, p. 171; J. A. N. S., (189) vol. iv, 1860, p. 335, pl. liii, f. 160; (203) vol. v, 1861, p. 95; Obs. Gen. Unio, (205) vol. viii, pp. 17, 99, pl. liii, f. 160.

U. vesicularis.
J. A. N. S., (273) vol. viii, 1874, p. 37, pl. xii, f. 34; Obs. Gen. Unio, (275) vol. lxi, p. 41, pl. xii, f. 34.

U. vestitus.
P. A. N. S., ((200) vol. xiii, 1861, p. 393; J. A. N. S., (213) vol. v, 1862, p. 189, pl. xxv, f. 259; Obs. Gen. Unio, (215) vol. ix, p. 11, pl. xxv, f. 259.

U. vibex.
T. A. P. S., (27) vol. vi, 1838, pp. 128, 148; Obs. Gen. Unio, (29) vol. 11, pp. 128, 148.

U. vicinus.
P. A. N. S., (116) vol. viii, 1856, p. 262; J. A. N. S., (148) vol. iv, 1858, p. 61, pl. ix, f. 43; (159) vol. iv, 1859, p. 216; Obs. Gen. Unio, (150) vol. vi, p. 61, pl. ix, f. 43; (170) vol. vii, p. 34.

U. violaceus.
T. A. P. S., (27) vol. vi, 1838, p. 130; Obs. Gen. Unio, (29) vol. ii, p. 130.

U. virens.
P. A. N. S., (129) vol. ix, 1857, p. 169; J. A. N. S., (148) vol. iv, 1858, p. 80, pl. xvi, f. 60; Obs. Gen. Unio, (150) vol. vi, p. 80, pl. xvi, fig. 60.

U. virescens.
P. A. N. S., (136) vol. x, 1858, p. 40; J. A. N. S., (189) vol. iv, 1860, p. 341, pl. lv, f. 166; Obs. Gen. Unio, (205) vol. viii, p. 23, pl. lv, f. 166.

Unio Virginiana.
T. A. P. S., (12) vol. iii, 1829, pp. 415, 416, (20) vol. v, 1833, p. 91; (27) vol. vi, 1838 127; Obs. Gen. Unio, (21) vol. i, pp. 29, 39, 203; (29) vol. ii, p. 127.

U. viridans.
P. A. N. S., (156) vol. xi, 1859, p. 170; J. A. N. (189) vol. iv, 1860, p. 337, pl. liv, f. 162; O Gen. Unio, (205) vol. viii, p. 19, pl. liv, f.

U. viridicatus.
P. A. N. S., (129) vol. ix, 1857, p. 170; J. A. N. (148) vol. iv, 1858, p. 87, pl. xviii, f. 67; O Gen. Unio, (150) vol. vi, p. 87, pl. xviii, f.

U. viridiradiatus.
P. A. N. S., (154) vol. xi, 1859, p. 154; J. A. N. (189) vol. iv, 1860, pp. 336, 338, pl. lii, f. 1 (213) vol. v, 1862, p. 210; Obs. Gen. U (205) vol. viii, pp. 18, 20, pl. liii, f. 161; O vol. ix, p. 32.

U. viridis.
T. A. P. S., (27) vol. vi, 1838, pp. 127, 144; O Gen. Unio, (29) vol. ii, pp. 127, 144.

U. viridulus.
J. A. N. S., (242) vol. vi, 1866, p. 10, pl. xiii, Obs. Gen. Unio, (244) vol. xi, p. 14, pl. iii,

U. vittatus.
T. A. P. S., (27) vol. vi, 1838, p. 144; P. A. N. (152) vol. xi, 1859, p. 153; J. A. N. S., (vol. iv, 1859, p. 249, pl. xxxviii. f. 128; O Gen. Unio, (29) vol. ii, p. 144; (170) vol. p. 67, pl. xxxviii, f. 128.

U. Waccamawensis.
J. A. N. S., (242) vol. vi, 1866, p. 16, pl. v, f. Obs. Gen. Unio, (244) vol. xi, p. 20, pl. 14.

U. Wardii.
P. A. N. S., (200) vol. xiii, 1861, p. 392; J N. S., (213) vol. v, 1862, p. 187, pl. xxi 257; Obs. Gen. Unio, (215) vol. ix, p. xxiv, f. 257.

U. Watereensis.
T. A. P. S., (27) vol. vi, 1838, pp. 130, 148; Gen. Unio, (29) vol. ii, pp. 130, 148.

U. Weldonensis.
J. A. N. S., (242) vol. vi, 1866, p. 11, pl. iii, Obs. Gen. Unio, (244) vol. xi, p. 15, f. 8.

U. Wheatleyanus.
P. A. N. S., (110) vol. viii, 1856, p. 94; J. S., (133) vol. iii, 1857, p. 308, pl. xxix, (168) vol. iv, 1859, pp. 267, 272; Obs. Unio, (150) vol. vi, p. 28, pl. xxix, (170) vol. vii, pp. 85, 90.

U. Wheatleyi.
P. A. N. S., (123) vol. ix, 1857, p. 85; (127) ix, 1857, p. 104; J. A. N. S., (203) vol. v, p. 54; Obs. Gens. Unio, (205) vol. viii,

U. Whiteianus.
T. A. P. S., (79) vol. x, 1852, p. 258, pl. xiv. P. A. P. S., (93) vol. v, 1852, p. 252; J. S., (148) vol. iv, 1858, p. 91; (213) vol. v, p. 200; Obs. Gen. Unio, (83) vol. v, p. xiv, f. 8; (150) vol. vi, p. 91; (215) vo p. 22.

, (152) vol. xi, 1859, p. 153; J. A. N. S., ol. iv, 1859, p. 256, pl. xl, f. 137; (242) 1866, p. 61; Obs. Gens. Unio, (170) i, p. 74, pl. xl, f. 137; (244) vol. xi, p. 65.

anus.

(147) vol. iv, 1858, pp. 45, 47, pl. v, f. 9) vol. iv, 1859, pp. 191, 199, 219, pl. 82, pl. xxix, f. 103; (202) vol. v, 1861, (221) vol. v, 1863, pp. 443, 444; Obs. nio, (150) vol. vi, pp. 45, 47, pl. v, f. 0) vol. vii, pp. 9, 17, 37, pl. xxiii, f. 82, x, f. 103; (205) vol. viii, p. 91; (222) pp. 79, 80.

us.

, (129) vol. ix, 1857, p. 170.

, (234) vol. xvii, 1865, p. 75; J. A. N.) vol. vi, 1868, p. 283, pl. xxxix, f. 97; Gen. Unio, (259) vol. xii, p. 43, pl. f. 97.

, (176) vol. xii, 1860, p. 90; J. A. N. S., ol. v, 1863, pp. 381, 389, pl. xlii, f. 289; en. Unio, (222) vol. x, pp. 17, 25, pl. 289.

ensis.

, (165) vol. xi, 1859, p. 331; J. A. N. S., ol. iv, 1859, pp. 271, 272, pl. xlv, f. s. Gen. Unio, (170) vol. vii, pp. 89, 90, f. 151.

s.

, (273) vol. viii, 1874, p. 32; Obs. Gen. 275) vol. xiii, p. 36, pl. x, f. 29.

s.

., (27) vol. vi, 1836, p. 32, pl. x, f. 27; p. 128, 148; Obs. Gen. Unio, (29) vol. 2, 128, 148, pl. x, f. 27.

., (12) vol. iii, 1829, pp. 409, 411, 412, 0, pl. xii, f. 19; (15) vol. iv, 1830, pp. (27) vol. vi, 1838, pp. 124, 148; P. A. (115) vol. viii, 1856, p. 213; (135) vol. , p. 14; J. A. N. S., (189) vol. iv, 1860, (221) vol. v, 1863, p. 430; Obs. Gen. (21) vol. i, pp. 23, 25, 26, 35, 54, 92, 93, , f. 19; (29) vol. ii, pp. 124, 148; (205) ii, p. 51; (222) vol. x, p. 66.

., (27) vol. vi, 1838, p. 144; Obs. Gen. (29) vol. ii, p. 144.

fera.

, (15) vol. iv, 1830, p. 104, pl. xv, f. 36, 20) vol. v, 1832, p. 27; Obs. Gen. Unio, ol. i, pp. 114, 139, pl. xv, f. 36, *a*, *b*.

, (40) vol. 2, 1841, pp. 81, 83; T. A. P.) vol. ix, 1841, p. 21; Obs. Gen. Unio, ol. iv, p. 21.

Valvata tricarinata.

P. A. P. S., (40) vol. ii, 1841, p. 81; T. A. P. S., (51) vol. ix, 1841, p. 21; Obs. Gen. Unio, (56) vol. iv, p. 21.

Venericardia.

(18) Con. to Geol., 1833, p. 71.

V. Blandingi.

(18) Con. to Geol., 1833, p. 71.

V. Brogniarti.

(18) Con. to Geol., 1833, p. 71.

V. granulata.

(18) Con. to Geol., 1833, p. 71.

V. parva.

(18) Con. to Geol., 1833, p. 70, pl. ii, f. 49.

V. planicosta.

(18) Con. to Geol., 1833, pp. 19, 20, 71.

V. rotunda.

(18) Con. to Geol., 1833, p. 70, pl. ii, f. 48.

V. rotundata.

(18) Con. to Geol., 1833, pp. 71, 207.

V. Sillimanii.

(18) Con. to Geol., 1833, pp. 69, 70, pl. ii, f. 47.

V. squamosa.

(18) Con. to Geol., 1833, p. 207.

V. transversa.

(18) Con. to Geol., 1833, p. 68, pl. ii, f. 46.

Vitrina.

J. A. N. S., (243) vol. vi, 1866, p. 156; Obs. Gen. Unio, (244) vol. xi, p. 112.

Voluta.

(18) Con. to Geol., 1833, p. 176.

V. athleta.

(18) Con. to Geol., 1833, p. 174.

V. Cooperii.

(18) Con. to Geol., 1833, pp. 174, 175, pl. vi, f. 185.

V. Defrancii.

(18) Con. to Geol., 1833, pp. 171, 172, 174, pl. vi, f. 179.

V. depauperata.

(18) Con. to. Geol., 1833, p. 174

V. gracilis.

(18) Con. to Geol., 1833, p. 172, pl. vi, f. 180.

V. Lamberti.

(18) Con. to Geol., 1833, pp. 144, 171.

V. Parkinsonii.

(18) Con. to Geol., 1833, p. 175.

V. parva.

(18) Con. to Geol., 1833, p. 173, pl. vi, f. 181.

V. spinosa.

(18) Con. to Geol., 1833, p. 172.

V. striata.

(18) Con. to Geol., 1833, p. 174, pl. vi, f. 183.

V. Vanuxemi.

(18) Con. to Geol., 1833, p. 173, pl. vi, f. 182.

GENERAL INDEX.

Page.

ral Sciences, Philadelphia,
lent of lvii
..... xxiii, xxv, xl
..... 137, 140
Alexander..xxi, xlviii, xlix, l, 54, 55
..... xiii
.....76, 80, 87, 95, 96, 99, 101, 103, 104
ay viii
urope compared xv
al 151
..... 143
ciation Advancement Sci-
president at meeting of... lvii
nal of Science ..... viii, ix
sophical Society, Philadel-
.....x, xxiv, lvii
it to xxxi
aac Lea vii
.....xxxii, xxxiii
..... xxxi
..... xxiii
..... 141
of Bengal lvi
..... xxix
..... xvii
..... 68
.....xiii, xiv
ofessor xxxvii
r xxvii
..... xxv
.....xiv, xxxviii, xliv
.....xxiv, xxviii
de.....xxiv, xxix
..... xl
ry de la...xiv, xxix, xxxviii, xxxix,
xli, xliii, xliv
..... xxviii
al.....xv, xviii
sor xxx
f Isaac Lea i
s x
s x
..... 166
tetch of Isaac Lea vii
..... xvi
..... vii
essor .....xvi, xvii
.....xxiii, xxxii, xxxiii, li, lv
..... xxxii
..... xxii
..... xiv
r xxvii
..... xlv

Page.

Brazil 95
Brewster, David xii
Braintree, Mass 78
British Association for the Advancement
of Science .....xii, xxxiv
British Museum .....xiv, xxxix
Broderip, Mr ..... xiii, xiv
Brongniart, Adolphe ..... xii, xvii
Brongniart, Alexandre xxxii
Brougham, Lord xxii
Brown, Professor ..... xii, xxii
Brunel, M xii
Brussels ..... xxii, xxx
Buchanan, Mr .....xx, xxxix
Buckland, Dr. William .....xii, xiii, xiv, xxxiv,
xxxviii, xli, li
Budd, Dr xx
Buenos Ayres 95
Buonaparte, Prince Charles...xvi, xx, xxiii, xxiv,
xxxi, xxxiii
Buonaparte, Prince Lucien M..... xxiv
Buonaparte, Prince Napoleon xxiv
Business, retirement from xix
Byssus in Unio 72, 76
Cailliaud, M xvii
California, illness in xlvii
Cambridge, visit to xxxvii
Campbell, Lord xxii
Carey, Miss Frances A ix
Carey, Mathew ..... ix, x
Carpenter, Dr .....xlii, xliii
Cass, Major xxxix
Cassinite xvi
Chamouni, visit to xxii
Chapman, Dr x
Charlesworth, Mr .....xxxiv, xxxv
Check list of North American shells..... 120
Chenu, Dr .....xxiv, xxv
Cheves, Langdon x
Chevreuil, Professor xxxii
Chiaji, Signor Dolli xxv
Children of Dr. Lea ix
Claxton, Mr xiv
Clepsysaurus Pennsylvanicus .....xxi, xliii
Coal ..... xiii, 53
Colimacea.....3, 15, 21, 22, 30, 40, 51, 60, 62
Collins, Z x
Combres, M xxxii
Conchæ 15
Conrad, T. A .....xix, xx, xxxvi, xlvi, 63, 143, 165
Conybeare xii
Cooper, J. Fenimore xiv
Cooper, Judge William ..... xi, xx

Page.
Copley medal xii
Correspondence ..... xi, xx, xlv, xlvii, lv
Corridi, Professor xxv
Corrie, Mrs xx
Couper, Mr xlv
Cretaceous formation 107, 155
Crosse, Mr xlii
Cruvellier, M xxxiii
Crystals ..... lviii, 161, 167
Cuba 26
Cuming, Hugh 51, 53
Cuvier, Baron ..... xii, xvi
Cuvier, Frederick xvi
Dalton, Professor xii
Dana, Prof. J. D ..... xxix, xxxviii
Daniels, Mr xiv
Darien, Isthmus of 81, 90, 94
Daubeny, Dr ..... xxxi, xxxiv, xxxvii
Davidson xxvii
Davies, Gilbert xii
Dawson, J. W xxxvi
Delawarite lvii
Delessert xxv
Deshayes ..... xviii, xxxii
Desing xxvii
Desor xxiii
Dewees, Dr x
D'Orbigny ..... xxiii, xxv
Drayton, Mr xix
Dresden, visit to xxviii
Duclos xvii
Dumas xvii
Duméril xxxiii
Dumont xxiv
Dunglison, Professor ..... xxxii, xlii, xliii
Dunker, Dr ..... xxiii, xxx
Duperrey, Admiral xviii
Earthquakes ..... ix, 1, 55
Echini 97
Ecuador 155
Edwards, Milne xxxii
Ehrenberg xxviii
Elliott, Rev. Stephen xlv
Ems, visit to xxii
Eocene of Alabama 61
Erenberg, Professor xxx
Estheria xl
Etheria ..... xxv, xl
Europe, visits to ..... xii, xix, xxi
Ewald, Professor xxx
Faraday xii
Ferussac, Baron ..... xv, xvi, xxiv, xxv, xl
Florence, visit to xxv
Florida 87, 95, 101
Flourens, Professor ..... xxxii, xxxiii
Follet, Mr xiv
Forbes, Prof. Edward ..... xxii, xxxviii, xxxix, xlii, xliii, xliv
Forbes, R. B 95
Foulke, Mr 83
Frances, Mr xxxix
Frankfort, visit to ..... xxii, xxx
Frauenfeld, Professor xxvii
Friends, Society of vii
Frost, Mr xxiv
Gates, Dr xix

Page
Gems, crystals in ..... 161, 167, 17[illegible]
Geneva, visit to xxii
Genth, Dr lvii
Geology, contributions to 5
Georgia 76, 77, 85, 87, 88, 94, 98, 101
Gerhard xxiii
Gladstone xxii
Godman, Dr xxix
Gould, Dr ..... xxxiv, xxxix, lvii
Graham xliii
Gray, Dr ..... xiv, xviii, xi
Grey, Lord xxii
Hague xxxi
Haidinger, William ..... xxiii, xxvi, xxviii, xxix, li, liv, lvi
Haines, Reuben ..... x, xx
Haldeman 43
Hallenback, Mr xiv
Hallstatter Schichten xxvii
Halos, article on 1
Hamilton, Sir William ..... xxxiv, xxxv, xvii, xliv
Hare, Dr. Robert ..... x, xxxiv
Hartman, Dr lvi
Harkness, Professor ..... xxixv, xli
Hays, Dr. Isaac xxxi
Heidelberg, visit to xxii
Helicidæ 150, 169, 170
Henry, Prof. Joseph 168
Herculaneum, visit to xxv
Hibernation, article on ..... ix, l
Hildreth, Dr ..... xi, xx
Honduras 61
Honors to Dr. Lea lviii
Hooker, Sir Wm ..... xlii, xlix
Hoffman xlii
Hopkins, Mr ..... xxxiv, xlii
Hopkinson, Judge x
Hörness, Professor ..... xxvi, xxvii
Hull, visit to xxxiv
Humboldt, Alexander ..... xxviii, xxxi, 87, 94
Hunt, Mr xxxv
India 15
Innsbruck xxvi
Jackson, Dr xliii
Jager, Dr xxiii
James, Dr x
Jaumard xvii
Jay, Dr ..... xi, xx
Jefferies, Mr lvi
Jerrold, Douglas xxxix
Jessup, Augustus E 91
Johnston, Professor ..... xxxiv, xxxv
Jones, T. Rupert xl
Jordan, Mr xxxiv
Kansas 88
Kensington Palace xiv
King, Dr xxi
Kirtland, Dr ..... xi, xx, xlvi
Klepstein xxiii
Krauss, Professor xxiii
Kurr, Professor xxiii
LL. D. conferred on Dr. Lea xxvi
La Croix ..... xvi, xvii
La Fayette, General xv
Lankaster, Dr ..... xxxiv, xxxv, xxxix
Largierelett xxiv

Page.
..... xxxiv
.....xvi, xvii
.bbott xxii
..... vii
..... vii
..... vii
..... lviii
..... ix
..... xxiv
ajor xi
..... xviii
seph .....xxvii, xxviii, xxxvi
..... lvii
ofessor.....xxii, xxiii. xxix
..... lvii
..... lvii
..... xxxvi
ames..... 95, 151
t to xxxi
, Professor xxix
..... 170
to..... xxvi
..... 85
River..... 53
.....xxi, xliv
ts to.....xxii, xxxv, xxxviii
..... ix
arles .....xx, xxxv, xxxvi, xxxvii, xxxix, xlii, xliii.
.....15, 21, 40, 51
to..... xxv
.....xxxiv, xliv
..... xii
..... xxxix
..... vii
.....xxxviii, xl, xli
Dr. Lea ix
r..... xiv
..... xxxvii
ince..... xxiv
Prince ..... xxii, xxix, xxxi
..... xxiv
fession vii
..... xliii
, 15, 21, 40, 51, 53, 59, 60, 62, 71, 76, 97, 104, 5, 119, 121, 128, 136, 137, 144, 146, 150, 153, 156, 158, 160, 170
e, Chamouni .....xvii, xxiii
William x
..... 98, 100
.....xxiv, lviii
to..... xxvi
nnes.....xxviii, xxix
rds..... xxxii
history of..... 1
microscopic .....xlvii, lvii
.....viii, 1, 151
.....85, 94, 101
ofessor..... xxviii
it to..... xxvi
ft parts 54
..... xxii
.....xxxviii, xliv
..... xiii
..... xxiii

Page.
Müller xxiii
Murchison, Sir Roderick..... xiv, xix
Nacre, coloring matters of 95
Naiades.....2, 3, 5, 11, 15, 16, 21, 36, 40, 51, 54, 55, 56, 61, 62, 63, 68, 70, 74, 75, 76, 78, 143, 165
Naples, visit to..... xxv
Neuwied, visit to xxii
Nebraska 80
New Granada 26
New Jersey..... 107, 155
New red sandstone formation.....56, 59, 68, 70
Nicaragua, Lake..... 151
Northwest passage..... ix, 1, 2
Nuttall, Thomas.....xxi, xliv, lviii, 3, 90
Oolitic formation in America..... 23, 26
Ord, Mr. George xxxi
Ova, red..... 94
Owen, Prof. Richard .....xxvii, xxviii, xxxiii, xl, liii, liv
Oxford, visit to..... xxxvii
Pæstum, visit to..... xxv
Padua..... xxvi
Paludinæ 150, 160, 170
Parents of Dr. Lea..... vii
Parhelia, article on..... 1
Paris .....xiv, xxii, xxiii, xxxi
Parry, Capt. William Edward 2
Patersonite..... lvi
Patterson, Dr. Robert M ..... x, xxiv
Peabody, Mr. George xxii
Pennsylvania 80, 151
Pentland xxv
Peristomiana.....15, 21, 40, 51, 71
Permian formation 80
Peters, Mr xxix
Petit .....xxiii, xxiv
Pfeiffer, Dr.....xxx, xlvii
Phillips, Prof. John. .....xxxv, xxxvii, xlvii
Plant, Mr..... xlv
Pompeii..... xxv
Porter, Major..... xliv
Posilippo..... xxv
Postell, Mr..... xlv
Powell, Colonel xliv
Powers..... xxv
Prague, visit to xxviii
Price, Dr..... xxxviii
Publication, proper date of..... 63
Quetelet..... xxii
Rafinesque, Mr 64
Rathbone, Willam .....xxi, xliv
Red Lion Club.....xxxiv, xxxviii, xxxix
Red River of the North 80
Red sandstone formation.....60, 61, 67, 77, 78
Redfern.....xxxiv, xxxv
Reeve, Lovel xxxv
Remak..... xxiii
Rhine, visits to.....xiv, xvi, xxii
Rigsby, Dr lvii
Rivoli, Duc de.....xvii, xviii
Roemer, Professor..... xxii
Rogers, Prof. H. D ....xxi, xxxvi, xxxvii, xxxviii
Rogert, Dr xiv
Rome, visit to..... xxv
Rose, Prof. George xxix

Page.
Ruppell, Dr ..... xxx, xxxi
Sabine, Colonel ..... xxxv, xlii, xliii
St. Hilaire xvi
Say, Mr ..... viii, xlvi
Schacchi, Professor xxv
Schimper, Professor xxiii
Schintz xxxiii
Schlangenbad xxii
Schlegel xxxi
Schelley, Dr. J. Y 54
Schwalback, visits to ..... xxii, xxxi
Scientists, description of distinguished xxvi
Scoresby, Rev. Mr xxxiv
Sedgwick, Rev. Adam ..... xiii, xiv, xxxiv, xxxvi, xxxvii, xlvii, xlviii
Sergeant, John x
Seybert, Dr. Adam vii
Sharpe, Mr xli
Sharpey, Professor ..... xlii, xliii
Shells, abnormal 93
turbinated and discoidal 40
Showalter, Dr 97
Siam 78
Silliman, Prof. Benjamin ..... viii, xvi, liii
Smith, Rev. Sydney xiii
Smith, William xii
Smithsonian Institution lvi
Somerville, Mrs xiv
South Carolina 94
Species, definition of the term 61
list of, discussed and described 173
number of new lii
Stewardson, Dr xlv
Stilling xxiii
Stokes, Mr ..... xiii, xxxiv, xli
Stonehenge, visit to xxxviii
Strasburg, visit to xxiii
Strepomatidæ 170
Strickland, Professor ..... xxiv, xxxvii
Stutchbury xxxix
Studer, Professor xvi
Stuttgart, visit to xxiii
Sussex, Duke of xiv
Swess, Professor xxvii
Switzerland ..... xiv, xvi
Tait, Judge Charles ..... xix, 6
Tamaulipas 76
Tappan, Senator ..... xi, xx, xlvi
Taylor, Richard Cowling 55, 56
Tennessee 80, 101

Page.
Tervier, M xxv
Texas 76, 85, 87, 94
Tilghman, Judge x
Torregiani, Marquis xxv
Triassic formation 89
Trilobites 78
Troschel, Professor xxii
United States Coast Survey xxviii
Unionidæ .57, 60, 61, 62, 78, 80, 81, 82, 85, 86, 88, 89, 90, 91, 92, 93, 94, 95, 98, 99, 100, 101, 108, 109, 111, 128, 128, 129, 130, 131, 132, 136, 137, 140, 141, 143, 144, 146, 150, 151, 152, 155, 156, 158, 160, 161, 162, 164, 167, 168, 169, 170
Uruguay 95, 97
Vanuxem, Professor ..... vii, viii, xxvii
Vaughan, John x
Venice, visit to xxvi
Verneuil, M ..... xxiv, xxix
Verona, visit to xxvi
Verreaux, M ..... xxxii, xxxiii
Vesuvius, visit to xxv
Vienna xxvi
Vigors, Mr xiii
Von Buch, Leopold ..... xxiii, xxiv, xxxi
Von Hauer ..... xxiii, xxvi
Von Martius xvi
Von Meyer ..... xxii, xxiii
Walsh, Robert, jr x
Ward, Dr ..... xi, xx
Warren, J. C., Dr xlviii
Waterhouse, Dr xxxix
Weaver, Mr xlii
Weiss, Professor xxix
Wells, Mr xiv
Wetherill, Mr xxxvi
Wheatstone xlii
Wiesbaden, visit to ..... xxii, xxiii
Wife of Dr. Lea lvii
Wilkes Barre, coal formation 57, 59
Willcox, Joseph lvi
Wistar Association ..... x, xxxiv
Wood, Dr xliii
Woodhouse xxxix
Woodward, S. P xxii
Wyman, Prof. Jeffries ..... xxxv, xlviii, l, 95
York, visit to xxxvii
Youth vii
Zircon 54
Zurich, visit to xxiii

Department of the Interior:

U. S. NATIONAL MUSEUM.

LELAND STANFORD JUNIOR UNIVERSITY
DEC 23 1891
LIBRARY

BULLETIN

OF THE

UNITED STATES NATIONAL MUSEUM.

No. 24.

CHECK LIST OF NORTH AMERICAN REPTILIA AND BATRACHIA, WITH CATALOGUE OF SPECIMENS IN U. S. NATIONAL MUSEUM.

BY

H. C. YARROW, M. D.,

HONORARY CURATOR, DEPARTMENT OF REPTILES.

WASHINGTON:
GOVERNMENT PRINTING OFFICE
1883.

Department of the Interior:
U. S. NATIONAL MUSEUM.

—30—

BULLETIN

OF THE

UNITED STATES NATIONAL MUSEUM.

No. 24.

PUBLISHED UNDER THE DIRECTION OF THE SMITHSONIAN INSTITUTION.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1882.

ADVERTISEMENT.

This work (Bulletin No. 24) is the thirtieth of a series of papers intended to illustrate the collections of natural history and ethnology belonging to the United States, and constituting the National Museum, of which the Smithsonian Institution was placed in charge by the act of Congress of August 10, 1846.

It has been prepared at the request of the Institution, and printed by authority of the honorable Secretary of the Interior.

SPENCER F. BAIRD,
Secretary of the Smithsonian Institution.

SMITHSONIAN INSTITUTION,
Washington, November, 1882.

CHECK LIST

OF

NORTH AMERICAN

REPTILIA AND BATRACHIA,

WITH

CATALOGUE OF SPECIMENS IN U. S. NATIONAL MUSEUM.

BY

H. C. YARROW, M. D.,
HONORARY CURATOR, DEPARTMENT OF REPTILES.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1882.

TABLE OF CONTENTS.

	Page.
Advertisement	II
Letter of transmittal	1
Check-list of North American Reptilia and Batrachia	3
Introductory remarks	3
Check-list based on the specimens of North American Reptilia and Batrachia contained in the National Museum, Washington	5
Check-list of reserve and general series of North American Reptilia and Batrachia	26
Notes on Testudinata	26
List of specimens of North American Reptilia and Batrachia desired by the National Museum	187
Note regarding specimens desired	187
Index to generic and specific names of North American Reptilia and Batrachia	195
Index to common names of North American Reptilia and Batrachia	201
Index to localities from which specimens of North American Reptilia and Batrachia have been obtained	207
Index to contributors	219
General index	225

LIST OF ERRATA, BULLETIN 24 U. S. NATIONAL MUSEUM.

Page 43: For "Emery" read "Emory."
Page 45: For "838" read "338."
Page 46: For "225" read "255."
Page 51: For "252" read "253."
Page 53: For "H. Mollhausen" read "H. B. Möllhausen."
Page 54: For "H. Mollhausen" read "H. B. Möllhausen."
Page 58: For "S. poinsettii" read "S. poinsetti."
Page 79: For "A. piscivorus piscivorus Lacépède" read "A. piscivorus piscivoru (Lacépède) Cope."
Page 102: For "1873" read "1853."
Page 108: For "E. F. Odell" read "B. F. Odell."
Page 110: For "97" read "96."
Page 122: For "Rio Miembris" read "Rio Miembres."
Page 123: For "J. B. Shepherd" read "J. R. Shepherd."
Page 129: For "Gereral series" read "General series."
Page 135: For "Forth Smith" read "Fort Smith."
Page 136: For "Dr. S. P. Barker" read "Dr. S. B. Barker."
Page 149: Omit "a" in "R. H. Kearn."
Page 149: For "Lieut. S. Warren" read "Lieut. G. K. Warren."
Page 169: For "Dr. J. P. Hammond" read "Dr. J. F. Hammond."
Page 171: For "Dr. J. H. Streets" read "Dr. T. H. Streets."
Page 171: Omit "Alaska" after "Puget Sound."
Page 172: For "John Felner" read "John Feldner."
Page 172: For "Lieut. Muller" read "Lieut. J. Mullan, U. S. A."
Page 179: For "E. C. Bridwell" "E. C. Bidwell."
Page 179: For Dr. J. Head, U. S. A.," read "Dr. J. F. Head, U. S. A."
Page 185: For "Miss G. Paine" read "Miss C. Paine."
Page 186: For "61" read "62."
~~Page 190: For "Gandiscus [illegible]" read "Candiscus [illegible]."~~

UNITED STATES NATIONAL MUSEUM,

Washington, D. C., July 1, 1882.

SIR: I have the honor to submit the inclosed MS. of the check list of North American Reptilia and Batrachia.

Very respectfully,

H. C. YARROW,

Honorary Curator, Department of Reptiles.

Prof. S. F. BAIRD,

Director United States National Museum.

CHECK LIST OF NORTH AMERICAN REPTILIA AND BATRACHIA,

WITH LISTS OF SPECIMENS IN RESERVE AND GENERAL SERIES.

By H. C. Yarrow, M. D. (Univ. Penn.),
Honorary Curator, Department of Reptiles.

Some seven years have elapsed since the publication of the valuable paper by Prof. E. D. Cope, entitled "Check List of North American Batrachia and Reptilia," issued as Bulletin No. 1 of the United States National Museum, and since that time a number of additions have been made to the reptilian fauna of our country, and some changes of nomenclature have been suggested. To bring the subject up to date, the present paper has been prepared.

In connection with the preparation of the paper, the entire collection of North American reptiles has been thoroughly examined, and the specimens have been divided into two series, called reserve and general series. The first of these consists of a carefully selected set of specimens which are intended to serve not only as a means of identification of specimens received from time to time at the Museum, but to afford students of this branch of Natural History an opportunity of making needful comparisons and of studying the generic and specific variations shown by so large a suite of examples from all parts of North America. In selecting specimens for the series, careful attention was paid to the following points which seemed essential:

1st. To reserve all type specimens that had been described by the earlier writers on American herpetology.

2d. To reserve those specimens identified by Prof. E. D. Cope at the time that he studied the entire reptilian collection of the Museum.

3d. To select specimens of the same species from different geographical areas.

4th. To select such specimens which showed either abnormalities from type descriptions or variation of color or scale formula. Following this plan a collection has been formed which embraces 469 species, and over

4,000 specimens, and which is believed to be unrivaled by any museum in the United States. A reference to a good published description of each species is added to the names used in the check list of the reserve series.

The general series consists of specimens which may be used either to amplify the reserve series, or to distribute for educational purposes.

The nomenclature and classification adopted are substantially the same as those of Prof. E. D. Cope in Bulletin No. 1 of the United States National Museum, 1875, although in some instances this distinguished herpetologist has not been absolutely followed. This list seems worthy of publication as it will not only show what is possessed by the National Museum, but its deficiencies and needs as well.

In preparing this check list and catalogue it has been deemed best to extend somewhat the southern geographic limits of the North American reptilian fauna, so that at the present time it shall include the entire continent of North America, the extreme southern boundary being a line drawn from the extremity of the peninsula of California across in an easterly direction to the mouth of the Rio Grande. The deficiencies in the collection are indicated by a separate list.

Considerable difficulty has been experienced in furnishing English names for the many species of reptiles, particularly as the same reptiles may be known by local names in different parts of the country; and to this task was added the very laborious one of translating as literally as possible some of the polysyllabic Greek and Latin names.

In preparing the collection the writer has been ably assisted at different times by a number of gentlemen connected with the National Museum, more recently by Messrs. S. C. Brown, B. A. Bean, J. L. Ridgway, and John Yarrow. Without the kind co-operation and cheerful industry of these assistants the present list could not have been prepared.

Mr. F. W. True has studied the collection of Testudinata, is responsible for the nomenclature, and his remarks upon them will be found under the appropriate heading.

CHECK LIST.

BASED ON THE SPECIMENS CONTAINED IN THE NATIONAL MUSEUM, WASHINGTON.

1. **ALLIGATOR MISSISSIPPIENSIS** DAUDIN.
   Alligator.
2. **CROCODILUS AMERICANUS** SEBA.
   American Crocodile.
3. **DERMATOCHELYS CORIACEA** (VANDELLI) STRAUCH.
   Leather-back Turtle; Trunk Turtle; "Luth."
4. **THALASSOCHELYS CARETTA** (LINN.) TRUE.
   Loggerhead.
5. **THALASSOCHELYS KEMPI** GARMAN.
   Bastard Loggerhead.
6. **ERETMOCHELYS IMBRICATA** (LINN.) AGASSIZ.
   Atlantic Hawk's-bill Turtle.
7. **ERETMOCHELYS SQUAMATA** AGASSIZ.
   Pacific Hawk's-bill Turtle.
8. **CHELONIA MYDAS** (LINN.) SCHWEIGGER.
   Atlantic Green Turtle.
9. **CHELONIA VIRGATA** SCHWEIGGER.
   Pacific Green Turtle.
10. **AMYDA MUTICA** (LES.) AGASSIZ.
    Unarmed Trionyx.
11. **ASPIDONECTES FEROX** (SEHN) WAGLER.
    Soft-shelled Turtle.
12. **ASPIDONECTES SPINIFER** (LES.) WAGLER.
    Spiny Soft-shelled Turtle.
13. **ASPIDONECTES ASPER** AGASSIZ.
    Rough Soft-shelled Turtle.
14. **ASPIDONECTES NUCHALIS** AGASSIZ.
    Agassiz's Soft-Shelled Turtle.
15. **ASPIDONECTES EMORYI** AGASSIZ.
    Emory's Soft-shelled Turtle.
16. **CHELYDRA SERPENTINA** (LINN.) SCHWEIGGER.
    Snapping Turtle; "Cooter."
17. **MACROCHELYS LACERTINA** (SCHWEIGGER) COPE.
    Alligator Snapping Turtle; "Caoune."
18. **AROMOCHELYS ODORATA** (LATR.) GRAY.
    Musk Turtle; "Stink-pot."

19. **AROMOCHELYS CARINATA** GRAY.
Southern Mud Turtle.

20. **GINOSTERNUM PENNSYLVANICUM PENNSYLVANICUM** (BOSC.) GRAY.
Eastern Mud Turtle; Musk Turtle.

21. **CINOSTERNUM PENNSYLVANICUM DOUBLEDAYI** (GRAY) COPE.
California Mud Turtle.

22. **CINOSTERNUM SONORIENSE** LE CONTE.
Le Conte's Mud Turtle.

23. **CINOSTERNUM FLAVESCENS** (AGASSIZ) COPE.
Yellow Mud Turtle.

24. **CINOSTERNUM HENRICI** LE CONTE.
Henry's Mud Turtle.

25. **PSEUDEMYS RUGOSA** (SHAW) COPE.
Red-bellied Terrapin; "Slider;" "Potter."

26. **PSEUDEMYS CONCINNA** (LE CONTE) GRAY.
Florida Cooter.

27. **PSEUDEMYS MOBILENSIS** HOLBROOK.
Mobile Terrapin; "Mobilianer."

28. **PSEUDEMYS HIEROGLYPHICA** HOLBROOK.
Holbrook's Terrapin.

29. **PSEUDEMYS SCABRA** (LINN.) COPE.
Yellow-bellied Terrapin.

30. **PSEUDEMYS TROOSTI** (HOLBROOK) COPE.
Troost's Terrapin.

31. **PSEUDEMYS ELEGANS** (PR. MAX WIED) COPE.
Cumberland Terrapin.

32. **PSEUDEMYS ORNATA** GRAY.
Ornate Terrapin.

33. **MALACOCLEMMYS GEOGRAPHICUS** (LES.) COPE.
Geographical Terrapin.

34. **MALACOCLEMMYS LE SUEURI** (GRAY) TRUE.
Le Sueur's Terrapin.

35. **MALACOCLEMMYS PALUSTRIS** (GMEL.) AGASSIZ.
Diamond-back Terrapin; Salt-water Terrapin.

36. **CHRYSEMYS PICTA** (HERM.) GRAY.
Pond Turtle; Painted Turtle; "Skilpot."

37. **CHRYSEMYS MARGINATA** AGASSIZ.
Margined Painted Turtle.

38. **CHRYSEMYS DORSALIS** AGASSIZ.
Mud Turtle.

39. **CHRYSEMYS BELLI** GRAY.
Bell's Turtle.

40. **CHRYSEMYS RETICULATA** (BOSC.) COPE.
Chicken Turtle.

41. **CHELOPUS GUTTATUS** (SCHWEIGGER) COPE.
Spotted Turtle.

42. **CHELOPUS MUHLENBERGI** (SCHWEIGGER) COPE.
Muhlenberg's Turtle.

43. **CHELOPUS INSCULPTUS** (LE CONTE) COPE.
Striated Turtle.

44. **CHELOPUS MARMORATUS** (BAIRD and GIRARD) COPE.
California Terrapin.

45. **EMYS MELEAGRIS** (SHAW) COPE.
Blanding's Terrapin.

46. **CISTUDO CAROLINA** (LINN.) COPE.
Land Turtle; Box Tortoise.

47. **CISTUDO CAROLINA TRIUNGUIS** (LINN.) COPE.
Three-toed Box Tortoise.

48. **CISTUDO ORNATA** AGASSIZ.
Painted Box Tortoise.

49. **XEROBATES POLYPHEMUS** (DAUDIN) COPE.
Gopher.

50. **XEROBATES AGASSIZI** COOPER.
Agassiz's Gopher.

51. **XEROBATES BERLANDIERI** AGASSIZ.
Western Gopher.

52. **CHIROTES CANALICULATUS** CUVIER.
Two-handed Ground Snake; Chirotes.

53. **RHINEÜRA FLORIDANA** BAIRD.
Ground Worm; Thunder Worm.

54. **ANIELLA PULCHRA** GRAY.
Blue Worm-Snake.

55. **OLIGOSOMA LATERALE** SAY.
Brown-back Ground Lizard.

56. **EUMECES SEPTENTRIONALIS** BAIRD.
Western Skink.

57. **EUMECES EGREGIUS** BAIRD.
Florida Skink.

58. **EUMECES ONOCREPIS** COPE.
Cope's Skink.

59. **EUMECES TETRAGRAMMUS** BAIRD.
Arizona Skink.

60. **EUMECES BREVILINEATUS** COPE.
Short-lined Skink.

61. **EUMECES ANTHRACINUS** BAIRD.
Anthracite Skink.

62. **EUMECES PACHYURUS** COPE.
Blunt-tail Skink.

63. **EUMECES PLUVIALIS** COPE.
Pluvial Skink.

64. **EUMECES INORNATUS** BAIRD.
Warren's Skink.

65. **EUMECES MULTIVIRGATUS** HALLOWELL.
Hallowell's Skink.

66. **EUMECES LEPTOGRAMMUS** BAIRD.
Hayden's Skink.

67. **EUMECES OBSOLETUS** BAIRD and GIRARD.
Sonoran Skink.

68. **EUMECES GUTTULATUS** HALLOWELL.
White-spotted Skink.

69. **EUMECES SKILTONIANUS** BAIRD and GIRARD.
Skilton's Skink.

70. **EUMECES FASCIATUS** LINN.
"Scorpion;" Blue-tailed Skink.

71. **EUMECES LONGIROSTRIS** COPE.
Bermuda Skink.

72. **XANTUSIA VIGILIS** BAIRD.
Xantus's Lizard.

73. **CNEMIDOPHORUS MAXIMUS** COPE.
Great Striped Lizard.

74. **CNEMIDOPHORUS GRAHAMI** BAIRD and GIRARD.
Graham's Striped Lizard.

75. **CNEMIDOPHORUS SEXLINEATUS** LINN.
Six-lined Lizard.

76. **CNEMIDOPHORUS INORNATUS** BAIRD.
Mexican Striped Lizard.

77. **CNEMIDOPHORUS OCTOLINEATUS** BAIRD.
Eight-lined Lizard.

78. **CNEMIDOPHORUS PERPLEXUS** BAIRD and GIRARD.
Seven-lined Lizard.

79. **CNEMIDOPHORUS TESSELLATUS TESSELLATUS** (SAY) COPE.
Tessellated Lizard.

80. **CNEMIDOPHORUS TESSELLATUS TIGRIS** (SAY) COPE.
Tessellated Tiger Lizard.

81. **CNEMIDOPHORUS TESSELLATUS MELANOSTETHUS** (SAY) COPE.
Black-breasted Lizard.

82. **CNEMIDOPHORUS TESSELLATUS GRACILIS** (SAY) COPE.
Say's Tessellated Lizard.

83. **VERTICARIA HYPERYTHRA** COPE.
Cape St. Lucas Striped Lizard.

84. **OPHEOSAURUS VENTRALIS** DAUDIN.
Glass Snake.

85. **BARISSIA OLIVACEA** BAIRD.
Schott's Lizard.

86. **GERRHONOTUS NOBILIS** BAIRD and GIRARD.
Gila River Lizard.

87. **GERRHONOTUS PRINCIPIS** BAIRD and GIRARD.
Oregon Lizard.

88. **GERRHONOTUS MULTICARINATUS** BAIRD and GIRARD.
Many-keeled Lizard.

89. **GERRHONOTUS GRANDIS** BAIRD and GIRARD.
Green-brown Lizard.

90. **GERRHONOTUS SCINCICAUDUS** SKILTON.
Skink-tailed Lizard.

91. **GERRHONOTUS INFERNALIS** BAIRD and GIRARD.
Mexican Lizard.

92. **HELODERMA SUSPECTUM** COPE.
Gila Monster.

93. **HOLBROOKIA MACULATA MACULATA** (GIRARD) COPE.
Holbrook's Lizard.

94. **HOLBROOKIA MACULATA PROPINQUA** (GIRARD) COPE.
Western Spotted Lizard.

95. **HOLBROOKIA MACULATA APPROXIMANS** (GIRARD) COPE.
Mexican Spotted Lizard.

96. **HOLBROOKIA TEXANA** TROSCHEL.
Texas Spotted Lizard.

97. **HOLBROOKIA LACERATA** COPE.
Boll's Spotted Lizard.

98. **CALLISAURUS DRACONTOIDES DRACONTOIDES** (BLAINV.) COPE.
California Dragon.

99. **CALLISAURUS DRACONTOIDES VENTRALIS** (BLAINV.) COPE.
Spotted-tail Dragon.

100. **CALLISAURUS DRACONTOIDES GABBI** (BLAINV.) COPE.
Gabb's Dragon.

101. **UMA NOTATA** BAIRD.
Baird's Lizard.

102. **SAUROMALUS ATER** DUMÉRIL.
Alderman Lizard.

103. **CROTAPHYTUS COLLARIS** SAY.
Collared Lizard.

104. **CROTAPHYTUS WISLIZENI** BAIRD and GIRARD.
Wislizenius' Lizard.

105. **CROTAPHYTUS COPEII** YARROW.
Cope's Lizard.

106. **CROTAPHYTUS RETICULATUS** BAIRD.
Reticulated Lizard.

107. **DIPSOSAURUS DORSALIS** BAIRD and GIRARD.
Colorado Desert Lizard.

108. **UTA THALASSINA** COPE.
Shielded Uta.

109. **UTA GRACIOSA** HALLOWELL.
Graceful Uta.

110. **UTA NIGRICAUDA** COPE.
Black tail Uta.

111. **UTA SCHOTTI** BAIRD.
Schott's Uta.

112. **UTA ELEGANS** YARROW.
Elegant Uta.

113. **UTA ORNATA** BAIRD and GIRARD.
Ornate Uta.

114. **UTA STANSBURIANA** BAIRD and GIRARD.
Stansbury's Uta.

115. **SCELOPORUS ORNATUS** BAIRD.
Decorated Lizard.

116. **SCELOPORUS JARROVI** COPE.
Yarrow's Lizard.

117. **SCELOPORUS POINSETTI** BAIRD and GIRARD.
Poinsett's Lizard.

118. **SCELOPORUS TORQUATUS** PEALE and GREEN.
Collared Lizard.

119. **SCELOPORUS COUCHI** BAIRD.
Couch's Lizard.

120. **SCELOPORUS MARMORATUS** HALLOWELL.
Marbled Lizard.

121. **SCELOPORUS BISERIATUS** HALLOWELL.
Two-lined Lizard.

122. **SCELOPORUS UNDULATUS UNDULATUS** (HARLAN) COPE.
Alligator Lizard.

123. **SCELOPORUS UNDULATUS THAYERI** (HARLAN) COPE.
Thayer's Alligator Lizard.

124. **SCELOPORUS UNDULATUS OCCIDENTALIS** (HARLAN) YARROW.
Western Alligator Lizard.

125. **SCELOPORUS CONSOBRINUS** BAIRD and GIRARD.
Marcy's Alligator Lizard.

126. **SCELOPORUS CONSOBRINUS GRATIOSUS** (BAIRD and GIRARD) COPE.
New Mexican Alligator Lizard.

127. **SCELOPORUS SMARAGDINUS** COPE.
Malachite Alligator Lizard.

128. **SCELOPORUS TRISTICHUS** COPE.
Sombre Alligator Lizard.

129. **SCELOPORUS UTIFORMIS** COPE.
Uta Alligator Lizard.

130 **SCELOPORUS SCALARIS** WIEGMANN.
Scaly Alligator Lizard.

131. **SCELOPORUS FLORIDANUS** BAIRD.
Florida Alligator Lizard.

132. **SCELOPORUS SPINOSUS** WIEGMANN.
Spiny Alligator Lizard.

133. **SCELOPORUS CLARKI CLARKI** (BAIRD and GIRARD) COPE.
Clark's Alligator Lizard.

134. **SCELOPORUS CLARKI ZOSTEROMUS** (BAIRD and GIRARD) COPE.
St. Lucas Alligator Lizard.

135. **SCELOPORUS RUFIDORSUM** YARROW.
California Red-backed Alligator Lizard.

136. **PHRYNOSOMA MODESTUM** GIRARD.
Little Horned Lizard.

137. **PHRYNOSOMA PLATYRHINUM** GIRARD.
Horned Lizard.

138. **PHRYNOSOMA MACCALLI** HALLOWELL.
McCall's Horned Lizard.

139. **PHRYNOSOMA REGALE** GIRARD.
Regal Horned Lizard.

140. **PHRYNOSOMA CORNUTUM** HARLAN.
Spiny-breasted Horned Lizard.

141. **PHRYNOSOMA ASIO** COPE.
Mexican Horned Lizard.

142. **PHRYNOSOMA HERNANDEZI** GIRARD.
Hernandez's Horned Lizard.

143. **PHRYNOSOMA DOUGLASSI DOUGLASSI** (BELL) COPE.
Douglass's Horned Lizard.

144. **PHRYNOSOMA DOUGLASSI ORNATISSIMUM** (BELL) COPE.
Ornate Horned Lizard.

145. **PHRYNOSOMA DOUGLASSI PYGMÆA** (BELL) YARROW
Pigmy Horned Lizard.

146. **PHRYNOSOMA BLAINVILLEI** GRAY.
Blainville's Horned Lizard.

147. **PHRYNOSOMA CORONATUM** BLAINVILLE.
Crowned Horned Lizard.

148. **CYCLURA HEMILOPHA** COPE.
Crested-back Cyclura.

149. **CYCLURA TERES** HARLAN.
Smooth-back Cyclura.

150. **CYCLURA ACANTHURA** SHAW.
Spiny-back Cyclura.

151. **ANOLIS PRINCIPALIS** LINN.
Chamaeleon; Scorpion; Green Lizard.

152. **ANOLIS COOPERI** BAIRD.
Cooper's Green Lizard.

153. **COLEONYX VARIEGATUS** BAIRD.
Variegated Gecko.

154. **SPHÆRODACTYLUS NOTATUS** BAIRD.
Florida Gecko.

155. **PHYLLODACTYLUS TUBERCULOSUS** WIEGMANN.
Warty Gecko.

156. **PHYLLODACTYLUS XANTI** COPE.
Xantus's Gecko.

157. **DIPLODACTYLUS UNCTUS** COPE.
St. Lucas Gecko.

158. **APLOASPIS LEPIDA** KENNICOTT.
Kennicott's Rattlesnake.

159. **CROTALUS PYRRHUS** COPE.
Red Rattlesnake.

160. **CROTALUS MITCHELLI** COPE.
Mitchell's Rattlesnake.

161. **CROTALUS CERASTES** HALLOWELL.
Horned Rattlesnake; "Side-winder."

162. **CROTALUS TIGRIS** KENNICOTT.
Tiger Rattlesnake.

163. **CROTALUS ENYO** COPE.
St. Lucas Rattlesnake.

164. **CROTALUS HORRIDUS** LINN.
Banded Rattlesnake.

165. **CROTALUS ADAMANTEUS ADAMANTEUS** (BEAUVOIS) COPE.
Diamond Rattlesnake.

166. **CROTALUS ADAMANTEUS ATROX** (BEAUVOIS) COPE.
Arizona Diamond Rattlesnake.

167. **CROTALUS ADAMANTEUS SCUTULATUS** (BEAUVOIS) COPE.
Scutulated Rattlesnake.

168. **CROTALUS LUCIFER** BAIRD and GIRARD.
California Rattlesnake.

169. **CROTALUS POLYSTICTUS** COPE.
Spotted Rattlesnake.

170. **CROTALUS CONFLUENTUS** SAY.
Confluent Rattlesnake.

171. **CROTALUS MOLOSSUS** BAIRD and GIRARD.
Black-tail Rattlesnake.

172. **CAUDISONA RAVA** COPE.
Mexican Ground Rattlesnake.

173. **CAUDISONA MILIARIA** LINN.
Southern Ground Rattlesnake.

174. **CAUDISONA EDWARDSI** BAIRD and GIRARD.
Sonora Ground Rattlesnake.

175. **CAUDISONA TERGEMINA** SAY.
Black Rattlesnake; Prairie Rattlesnake; Massasauga.

176. **ANCISTRODON PISCIVORUS PISCIVORUS** (LACÉPÈDE) COPE.
Water Moccasin.

177. **ANCISTRODON PISCIVORUS PUGNAX** (LACÉPÈDE) COPE.
Texas Moccasin.

178. **ANCISTRODON CONTORTRIX** LINN.
Copperhead; Moccasin; Cotton-mouth; Red-eye.

179. **ANCISTRODON ATROFUSCUS** TROOST.
Troost's Moccasin.

180. **ELAPS FULVIUS FULVIUS** (LINN.) COPE.
Harlequin Snake; Viper.

181. **ELAPS FULVIUS TENER** (LINN.) COPE.
Texas Harlequin Snake.

182. **ELAPS EURYXANTHUS** KENNICOTT.
Sonora Harlequin Snake.

183. **ELAPS DISTANS** KENNICOTT.
Florida Harlequin Snake.

184. **ELAPS TRISTIS** BAIRD and GIRARD.
Tawny Harlequin Snake.

185. **CARPHOPHIOPS HELENÆ** KENNICOTT.
Helen's Snake.

186. **CARPHOPHIOPS AMŒNUS** SAY.
Ground Snake; Worm Snake.

187. **CARPHOPHIOPS VERMIS** KENNICOTT.
Western Ground Snake.

188. **VIRGINIA VALERIÆ** BAIRD and GIRARD.
Valeria's Snake.

189. **VIRGINIA ELEGANS** KENNICOTT.
Virginia's Snake.

190. **HALDEA STRIATULA** LINN.
Brown Snake.

191. **TANTILLA PLANICEPS** BLAINVILLE.
Flat-headed Tantilla.

192. **TANTILLA GRACILIS** BAIRD and GIRARD.
Graceful Tantilla.

193. **TANTILLA HALLOWELLI** COPE.
Hallowell's Tantilla.

194. **TANTILLA NIGRICEPS** KENNICOTT.
Black-headed Tantilla.

195. **TANTILLA CORONATA** BAIRD and GIRARD.
Crowned Tantilla.

196. **ABASTOR ERYTHROGRAMMUS** DAUDIN.
Horn Snake; Hoop Snake.

197. **FARANCIA ABACURA** HOLBROOK.
Red-bellied Snake; Horn Snake.

198. **CHILOMENISCUS STRAMINEUS** COPE.
Straw Snake.

199. **CHILOMENISCUS EPHIPPICUS** COPE.
Horse Snake.

200. **CHILOMENISCUS CINCTUS** COPE.
Sonora Ringed Snake.

201. **CHIONACTIS OCCIPITALIS** HALLOWELL.
Mohave Snake.

202. **CHIONACTIS OCCIPITALIS ANNULATA** (HALLOWELL) COPE.
Mohave Ringed Snake.

203. **CONTIA MITIS** BAIRD and GIRARD.
Purple-tailed Snake.

204. **CONTIA EPISCOPA EPISCOPA** (KENN.) COPE.
Miter Snake.

205. **CONTIA EPISCOPA TORQUATA** (KENN.) COPE.
Collared Miter Snake.

206. **CONTIA EPISCOPA ISOZONA** (KENN.) COPE.
Banded Miter Snake,

207. **CONTIA PYGÆA** COPE.
Florida Miter Snake.

208. **SONORA SEMIANNULATA** BAIRD and GIRARD.
Sonora Ring Snake.

209. **LODIA TENUIS** BAIRD and GIRARD.
Oregon Worm Snake.

210. **GYALOPIUM CANUM** COPE.
Dog-nose Snake.

211. **CEMOPHORA COCCINEA** BLUMENBACH.
Scarlet Snake.

212. **RHINOCHILUS LECONTEII** BAIRD and GIRARD.
Le Conte's Snake.

213. **OSCEOLA ELAPSOIDEA** HOLBROOK.
Osceola's Snake.

214. **OPHIBOLUS DOLIATUS DOLIATUS** (LINN.) COPE.
Scarlet King Snake.

215. **OPHIBOLUS DOLIATUS COCCINEUS** (LINN.) COPE.
Red King Snake.

216. **OPHIBOLUS DOLIATUS AMAURUS** (LINN.) COPE.
Mexican King Snake.

217. **OPHIBOLUS DOLIATUS GENTILIS** (LINN.) COPE.
Arkansas King Snake.

218. **OPHIBOLUS DOLIATUS ANNULATUS** (LINN.) COPE.
Ringed King Snake.

219. **OPHIBOLUS DOLIATUS TRIANGULUS** (LINN.) COPE.
House Snake; Milk Snake; Chicken Snake; Thunder and Lightning Snake.

220. **OPHIBOLUS MULTISTRATUS** KENNICOTT.
Kennicott's King Snake.

221. **OPHIBOLUS PYRRHOMELAS** COPE.
Arizona King Snake.

222. **OPHIBOLUS GETULUS GETULUS** (LINN.) COPE.
Thunder Snake; King Snake; Chain Snake.

223. **OPHIBOLUS GETULUS BOYLI** (LINN.) COPE.
California King Snake.

224. **OPHIBOLUS GETULUS SPLENDIDUS** (LINN.) COPE.
Sonora King Snake.

225. **OPHIBOLUS GETULUS SAYI** (LINN.) COPE.
Say's King Snake.

226. **OPHIBOLUS GETULUS NIGER** (LINN.) YARROW.
Ridgway's King Snake.

227. **OPHIBOLUS GETULUS MULTICINCTUS** (LINN.) YARROW.
Eisen's King Snake.

228. **OPHIBOLUS GETULUS EISENI** (LINN.) YARROW.
Fresno King Snake.

229. **OPHIBOLUS CALIFORNIÆ** BLAINV.
Blainville's King Snake.

230. **OPHIBOLUS RHOMBOMACULATUS** HOLBROOK.
Blotched King Snake.

231. **OPHIBOLUS CALLIGASTER** SAY.
Evans's King Snake.

232. **DIADOPHIS PUNCTATUS PUNCTATUS** (LINN.) COPE.
Ring-necked Snake.

233. **DIADOPHIS PUNCTATUS STICTOGENYS** (LINN.) COPE.
Texas Ring-necked Snake.

234. **DIADOPHIS PUNCTATUS AMABILIS** (LINN.) COPE.
Ring-necked Snake.

235. **DIADOPHIS PUNCTATUS PULCHELLUS** (LINN.) YARROW.
California Ring-necked Snake.

236. **DIADOPHIS DYSOPES** COPE.
Ring-necked Snake.

237. **DIADOPHIS ARNYI** KENNICOTT.
Arny's Ring-necked Snake.

238. **DIADOPHIS REGALIS** BAIRD and GIRARD.
Regal Ring-necked Snake.

239. **CONIOPHANES IMPERIALIS** GIRARD.
Imperial Snake.

240. **HYPSIGLENA OCHRORHYNCHA** COPE.
Xantus' Snake.

241. **HYPSIGLENA OCHRORHYNCHA CHLOROPHÆA** COPE.
Irwin's Snake.

242. **SIBON ANNULATUM SEPTENTRIONALE** (LINN.) COPE.
Ringed Snake.

243. **TRIMORPHODON LYROPHANES** COPE.
Jew's-harp Snake.

244. **PHIMOTHYRA GRAHAMI** BAIRD and GIRARD.
Graham's Snake.

245. **PHIMOTHYRA GRAHAMI HEXALEPIS** (BAIRD and GIRARD) COPE.
Graham's Arizona Snake.

246. **PHIMOTHYRA DECURTATA** COPE.
St. Lucas Phimothyra.

247. **DROMICUS FLAVILATUS** COPE.
Yarrow's Dromicus.

248. **CYCLOPHIS VERNALIS** DE KAY.
Green Snake.

249. **CYCLOPHIS ÆSTIVUS** LINN.
Keeled Green Snake.

250. **COLUBER EMORYI** BAIRD and GIRARD.
Emory's Snake.

251. **COLUBER LINDHEIMERI** BAIRD and GIRARD.
Lindheimer's Snake.

252. **COLUBER VULPINUS** BAIRD and GIRARD.
Fox Snake.

253. **COLUBER QUADRIVITTATUS** HOLBROOK.
Four-lined Snake; Chicken Snake.

254. **COLUBER OBSOLETUS OBSOLETUS** (SAY) COPE.
Mountain Black Snake.

255. **COLUBER OBSOLETUS CONFINIS** (BAIRD and GIRARD) COPE.
Red-headed Coluber.

256. **COLUBER GUTTATUS** LINN.
Spotted Coluber.

257. **COLUBER BAIRDI** YARROW.
Baird's Coluber.

258. **SPILOTES COUPERI** HOLBROOK.
Couper's Snake.

259. **SPILOTES EREBENNUS** COPE.
Georgia Snake; Indigo Snake.

260. **PITYOPHIS MELANOLEUCUS** DAUDIN.
Pine Snake; Bull Snake.

261. **PITYOPHIS SAYI SAYI** (SCHLEGEL) COPE.
Say's Pine Snake.

262. **PITYOPHIS SAYI BELLONA** (SCHLEGEL) COPE.
Western Bull Snake.

263. **PITYOPHIS VERTEBRALIS** BLAINVILLE.
St. Lucas Bull Snake.

264. **PITYOPHIS ELEGANS** KENNICOTT.
Elegant Bull Snake.

265. **BASCANIUM CONSTRICTOR** LINN.
Black Snake; Black Chaser.

266. **BASCANIUM CONSTRICTOR FLAVIVENTRIS** (LINN.) YARROW and HENSHAW.
Yellow-bellied Black Snake.

267. **BASCANIUM ANTHICUM** COPE.
Louisiana Black Snake.

268. **BASCANIUM FLAGELLIFORME FLAGELLIFORME** (CATESB.) COPE.
Coach-whip Snake.

269. **BASCANIUM FLAGELLIFORME PICEUM** (CATESB.) COPE.
Arizona Coach-whip Snake.

270. **BASCANIUM FLAGELLIFORME TESTACEUM** (CATESB.) COPE.
Yellow Coach-whip Snake.

271. **BASCANIUM TÆNIATUM TÆNIATUM** (HALLOWELL) COPE.
Pacific Coach-whip Snake.

272. **BASCANIUM TÆNIATUM LATERALE** (HALLOWELL) COPE.
Hallowell's Coach-whip Snake.

273. **BASCANIUM TÆNIATUM ORNATUM** (HALLOWELL) COPE.
Texas Coach-whip Snake.

274. **BASCANIUM AURIGULUM** COPE.
St. Lucas Coach-whip Snake.

275. **CHILOPOMA RUFIPUNCTATUM** COPE.
Red-spotted Chilopoma.

276. **EUTÆNIA SAURITA** LINN.
Ribbon Snake, Swift Garter Snake.

277. **EUTÆNIA SACKENI** KENNICOTT.
Osten-Sacken's Garter Snake.

278. **EUTÆNIA FAIREYI** BAIRD and GIRARD.
Fairie's Garter Snake.

279. **EUTÆNIA PROXIMA** SAY.
Long's Garter Snake.

280. **EUTÆNIA RADIX** BAIRD and GIRARD.
Racine Garter Snake.

281. **EUTÆNIA RADIX TWININGI** (BAIRD and GIRARD) COUES and YARROW.
Twining's Garter Snake.

282. **EUTÆNIA MACROSTEMMA MEGALOPS** (KENNICOTT) COPE.
Emory's Garter Snake.

283. **EUTÆNIA HAMMONDI** KENNICOTT.
Hammond's Garter Snake.

284. **EUTÆNIA MARCIANA** BAIRD and GIRARD.
Marcy's Garter Snake.

285. **EUTÆNIA VAGRANS VAGRANS** (BAIRD and GIRARD) COPE.
Wandering Garter Snake.

286. **EUTÆNIA VAGRANS ANGUSTIROSTRIS** (BAIRD and GIRARD) COPE.
Long-nosed Garter Snake.

287. **EUTÆNIA ELEGANS** BAIRD and GIRARD.
Boyd's Garter Snake.

288. **EUTÆNIA CYRTOPSIS** KENNICOTT.
Couch's Garter Snake.

289. **EUTÆNIA CYRTOPSIS OCELLATUS** (KENN.) COPE
Ocellated Garter Snake.

290. **EUTÆNIA ORNATA** BAIRD.
Ornate Garter Snake.

291. **EUTÆNIA SIRTALIS SIRTALIS** (LINN.) COPE.
Striped Snake; Garter Snake.

292. **EUTÆNIA SIRTALIS DORSALIS** (LINN.) COPE.
Churchill's Garter Snake.

293. **EUTÆNIA SIRTALIS ORDINATA** (LINN.) COPE.
Grass Snake.

294. **EUTÆNIA SIRTALIS PARIETALIS** (LINN.) COPE.
Rocky Mountain Garter Snake.

295. **EUTÆNIA SIRTALIS OBSCURA** (LINN.) COPE.
Dusky Garter Snake.

296. **EUTÆNIA SIRTALIS PICKERINGI** (BAIRD and GIRARD) COPE.
Pickering's Garter Snake.

297. **EUTÆNIA SIRTALIS TETRATÆNIA** (LINN.) COPE.
California Garter Snake.

298. **EUTÆNIA ATRATA** KENNICOTT.
Black Garter Snake.

299. **EUTÆNIA COOPERI** KENNICOTT.
Cooper's Garter Snake.

300. **EUTÆNIA PHENAX** COPE.
Orizaba Garter Snake.

301. **EUTÆNIA SCALARIS** COPE.
Scaly Garter Snake.

302. **EUTÆNIA SUMICHRASTI** COPE.
Sumichrast's Garter Snake.

303. **STORERIA OCCIPITOMACULATA** STORER.
Storer's Snake.

304. **STORERIA DEKAYI** HOLBROOK.
De Kay's Snake.

305. **TROPIDOCLONIUM STORERIOÏDES** COPE.
Storer's Snake.

306. **TROPIDOCLONIUM LINEATUM** HALLOWELL.
Lined Snake.

307. **TROPIDOCLONIUM KIRTLANDI** KENNICOTT.
Kirtland's Snake.

308. **TROPIDONOTUS CLARKI** BAIRD and GIRARD.
Clark's Snake.

309. **TROPIDONOTUS GRAHAMI** BAIRD and GIRARD.
Graham's Queen Snake.

310. **TROPIDONOTUS LEBERIS** LINN.
Brown Queen Snake.

311. **TROPIDONOTUS RIGIDUS** SAY.
Green Queen Snake.

312. **TROPIDONOTUS VALIDUS VALIDUS** (KENNICOTT) COPE.
Couch's Queen Snake.

313. **TROPIDONOTUS VALIDUS CELÆNO** (KENNICOTT) COPE.
St. Lucas Queen Snake.

314. **TROPIDONOTUS VALIDUS TEPHROPLEURA** (KENNICOTT) YARROW.
St. Lucas Water Snake.

315. **TROPIDONOTUS COMPSOLÆMUS** COPE.
Florida Water Snake.

316. **TROPIDONOTUS COMPRESSICAUDUS** KENNICOTT.
Flat-tailed Water Snake.

317. **TROPIDONOTUS USTUS** COPE.
Yellow Water Snake.

318. **TROPIDONOTUS FASCIATUS** LINN.
Banded Water Snake.

319. **TROPIDONOTUS SIPEDON SIPEDON** (LINN.) COPE.
Water Snake; Water Moccasin.

320. **TROPIDONOTUS SIPEDON WOODHOUSEII** (LINN.) COPE.
Woodhouse's Water Snake.

321. **TROPIDONOTUS SIPEDON COUCHI** (LINN.) COPE.
Couch's Water Snake.

322. **TROPIDONOTUS SIPEDON ERYTHROGASTER** (LINN.) COPE.
Red-bellied Water Snake.

323. **TROPIDONOTUS TAXISPILOTUS** HOLBROOK.
Brown Water Snake.

324. **TROPIDONOTUS RHOMBIFER** HALLOWELL.
Holbrook's Water Snake.

325. **TROPIDONOTUS CYCLOPIUM** DUMÉRIL and BIBRON.
Water Snake.

326. **HELICOPS ALLENI** GARMAN.
Allen's Snake.

327. **HETERODON PLATYRHINUS PLATYRHINUS** (LATREILLE) YARROW.
Hog-nose Snake; Blowing Viper.

328. **HETERODON PLATYRHINUS ATMODES** (LATREILLE) COPE.
Black Hog-nose Snake.

329. **HETERODON PLATYRHINUS NIGER** (LATREILLE) YARROW.
Black Viper; Spreading Adder.

330. **HETERODON SIMUS SIMUS** (LINN.) COPE.
Sand Viper.

331. **HETERODON SIMUS NASICUS** (LINN.) COPE.
Western Hog-nose Snake.

332. **HETERODON SIMUS KENNERLYI** (LINN.) COUES and YARROW.
Kennerly's Hog-nose Snake.

333. **CHARINA BOTTÆ** BLAINVILLE.
Botta's Worm Snake.

334. **CHARINA PLUMBEA** BAIRD and GIRARD.
Lead-colored Worm Snake.

335. **LICHANURA TRIVIRGATA** COPE.
Three-lined Boa.

336. **LICHANURA MYRIOLEPIS** COPE.
Many-scaled Boa.

337. **LICHANURA ROSEIFUSCA** COPE.
Rosy Boa.

338. **STENOSTOMA DULCE** BAIRD and GIRARD.
Texas Rena.

339. **STENOSTOMA HUMILE** BAIRD and GIRARD.
California Rena.

340. **SIREN LACERTINA** LINN.
Mud Eel; Siren.

341. **PSEUDOBRANCHUS STRIATUS** LE CONTE.
Striated Siren.

342. **NECTURUS LATERALIS** SAY.
Lake Siren; Proteus.

343. **NECTURUS PUNCTATUS** GIBBES.
Gibbes's Proteus.

344. **AMPHIUMA MEANS** LINN.
Congo Snake.

345. **MURÆNOPSIS TRIDACTYLUS** CUVIER.
Three-fingered Siren.

346. **MENOPOMA ALLEGHENIENSE** HARLAN.
Hellbender.

347. **MENOPOMA FUSCUM** HOLBROOK.
Tennessee Hellbender.

348. **AMBLYSTOMA TALPOIDEUM** HOLBROOK.
Tadpole Salamander.

349. **AMBLYSTOMA OPACUM** GRAVENHORST.
Marbled Salamander.

350. **AMBLYSTOMA PUNCTATUM** LINN.
Spotted Salamander.

351. **AMBLYSTOMA CONSPERSUM** COPE.
Sprinkled Salamander.

352. **AMBLYSTOMA BICOLOR** HALLOWELL.
Beesley's Point Salamander.

353. **AMBLYSTOMA TIGRINUM** GREEN.
Tiger Salamander.

354. **AMBLYSTOMA MAVORTIUM** BAIRD.
Axolotl.

355. **AMBLYSTOMA MAVORTIUM CALIFORNIENSE (BAIRD) COPE.**
California Axolotl.

356. **AMBLYSTOMA OBSCURUM** BAIRD.
Dusky Salamander.

357. **AMBLYSTOMA XIPHIAS** COPE.
Yellow Salamander.

358. **AMBLYSTOMA TRISRUPTUM** COPE.
New Mexican Salamander.

359. **AMBLYSTOMA JEFFERSONIANUM JEFFERSONIANUM (GREEN)** COPE.
Jefferson's Salamander.

360. **AMBLYSTOMA JEFFERSONIANUM LATERALE** (GREEN) COPE
Lateral Salamander.

361. **AMBLYSTOMA JEFFERSONIANUM FUSCUM** (GREEN) COPE.
Brown Salamander.

362. **AMBLYSTOMA JEFFERSONIANUM PLATINEUM** (GREEN) COPE.
Slender Salamander.

363. **AMBLYSTOMA MACRODACTYLUM** BAIRD.
Flat-footed Salamander.

364. **AMBLYSTOMA PAROTICUM** BAIRD.
Vancouver's Salamander.

365. **AMBLYSTOMA ATERRIMUM** COPE.
Rocky Mountain Salamander.

366. **AMBLYSTOMA TENEBROSUM** BAIRD and GIRARD.
Oregon Salamander.

367. **AMBLYSTOMA TEXANUM** MATTHES.
Texas Salamander.

368. **AMBLYSTOMA CINGULATUM** COPE.
Bailey's Salamander.

369. **AMBLYSTOMA MICROSTOMUM** COPE.
Porphyry Salamander.

370. **DICAMPTODON ENSATUS** ESCHSCHOLZ.
Eschscholz's Lizard.

371. **BATRACHOSEPS ATTENUATUS** ESCHSCHOLZ.
Slender Lizard.

372. **BATRACHOSEPS NIGRIVENTRIS** COPE.
Black-bellied Lizard.

373. **BATRACHOSEPS PACIFICUS** COPE.
Pacific Lizard.

374. **HEMIDACTYLIUM SCUTATUM** SCHLEGEL.
Scaly Lizard.

375. **PLETHODON CINEREUS CINEREUS** (GREEN) COPE.
Ashy Lizard.

376. **PLETHODON CINEREUS ERYTHRONOTUS** (GREEN) COPE.
Chestnut-backed Lizard.

377. **PLETHODON CINEREUS DORSALIS** (GREEN) COPE.
Ashy Lizard.

378. **PLETHODON INTERMEDIUS** BAIRD.
Vancouver Island Lizard.

379. **PLETHODON GLUTINOSUS** GREEN.
Slimy Lizard.

380. **PLETHODON OREGONENSIS** GIRARD.
Oregon Triton.

381. **PLETHODON FLAVIPUNCTATUS** STRAUCH.
Yellow-spotted Lizard.

382. **PLETHODON CROCEATER** COPE.
Cape St. Lucas Triton.

383. **STEREOCHILUS MARGINATUM** HALLOWELL.
Margined Triton.

384. **MANCULUS REMIFER** COPE.
Florida Manculus.

385. **MANCULUS QUADRIDIGITATUS** HOLBROOK.
Four-fingered Manculus.

386. **SPELERPES MULTIPLICATUS** COPE.
Many-ribbed Triton.

387. **SPELERPES BILINEATUS** GREEN.
Green's Triton.

388. **SPELERPES LONGICAUDUS** GREEN.
Long-tailed Triton.

389. **SPELERPES GUTTOLINEATUS** HOLBROOK.
Holbrook's Triton.

390. **SPELERPES RUBER RUBER** DAUDIN.
Red Triton.

391. **SPELERPES RUBER STICTICEPS** (DAUDIN) COPE.
Baird's Triton.

392. **SPELERPES RUBER MONTANUS** (DAUDIN) COPE.
Mountain Triton.

393. **GYRINOPHILUS PORPHYRITICUS** GREEN.
Salmon Triton.

394. **ANAIDES LUGUBRIS** HALLOWELL.
Sad-colored Anaides.

395. **ANAIDES FERREUS** COPE.
Rusty Anaides.

396. **DESMOGNATHUS OCHROPHÆA** COPE.
Triton.

397. **DESMOGNATHUS FUSCA FUSCA** (RAF.) COPE.
Brown Triton.

398. **DESMOGNATHUS FUSCA AURICULATA** (RAF.) COPE.
Eared Triton.

399. **DESMOGNATHUS NIGRA** GREEN.
Black Triton.

400. **DIEMYCTYLUS TOROSUS** ESCHSCHOLZ.
Pacific Water Lizard.

401. **DIEMYCTYLUS MINIATUS MINIATUS** (RAF.) COPE.
Eastern Water Lizard.

402. **DIEMYCTYLUS MINIATUS VIRIDESCENS** (RAF.) COPE.
Green Triton.

403. **DIEMYCTYLUS MINIATUS MERIDIONALIS** (RAF.) COPE.
Texas Triton.

404. **BUFO PUNCTATUS** BAIRD.
Spotted Toad.

405. **BUFO DEBILIS** GIRARD.
Sonora Toad.

406. **BUFO HALOPHILUS** BAIRD.
Baird's Toad.

407. **BUFO COLUMBIENSIS** BAIRD
Columbia Toad.

408. **BUFO COPEII** YARROW and HENSHAW.
Cope's Toad.

409. **BUFO BELDINGI** YARROW.
Belding's Toad.

410. **BUFO ALVARIUS** GIRARD.
Girard's Toad.

411. **BUFO MICROSCAPHUS** COPE.
Small Spaded Toad.

412. **BUFO PICTUS** COPE.
Painted Toad.

413. **BUFO SPECIOSUS** GIRARD.
Western Toad.

414. **BUFO LENTIGINOSUS LENTIGINOSUS** (SHAW) COPE.
Latreille's Toad.

415. **BUFO LENTIGINOSUS FRONTOSUS** (SHAW) COPE.
Toad.

416. **BUFO LENTIGINOSUS COGNATUS** (SHAW) COPE.
Texas Toad.

417. **BUFO LENTIGINOSUS AMERICANUS** (SHAW) COPE.
American Toad.

418. **BUFO LENTIGINOSUS FOWLERI** (SHAW) COPE.
Fowler's Toad.

419. **BUFO QUERCICUS** HOLBROOK.
Oak Frog.

420. **BUFO VALLICEPS** WIEGMANN.
Nebulous Toad.

421. **ENGYSTOMA CAROLINENSE** HOLBROOK.
Carolina Tree Frog.

422. **ACRIS GRYLLUS GRYLLUS** (LE CONTE) COPE.
Savannah Cricket.

423. **ACRIS GRYLLUS CREPITANS** (LE CONTE) COPE.
Western Cricket.

424. **CHOROPHILUS TRISERIATUS TRISERIATUS** (PR. MAX. WIED.) COPE.
Tree Frog.

425. **CHOROPHILUS TRISERIATUS CLARKI** (PR. MAX. WIED.) COPE.
Clark's Tree Frog.

426. **CHOROPHILUS TRISERIATUS CORPORALIS** (PR. MAX. WIED.) COPE.
Cope's Tree Frog.

427. **CHOROPHILUS NIGRITUS** LE CONTE.
Black Tree Frog.

428. **CHOROPHILUS ANGULATUS** COPE.
Black-spotted Tree Frog.

429. **CHOROPHILUS OCULARIS** DAUDIN.
Tree Frog.

430. **CHOROPHILUS ORNATUS** HOLBROOK.
Ornate Tree Frog.

431. **HYLA CURTA** COPE.
Cape St. Lucas Hyla.

432. **HYLA REGILLA** BAIRD.
Pacific Hyla.

433. **HYLA EXIMIA** BAIRD.
Sonora Hyla.

434. **HYLA ANDERSONI** BAIRD.
Anderson's Hyla.

435. **HYLA SQUIRELLA** DAUDIN.
Squirrel Hyla; Tree Frog.

436. **HYLA CAROLINENSIS** PENNANT.
Carolina Hyla.

437. **HYLA CAROLINENSIS SEMIFASCIATA** (PENNANT) COPE.
Banded Hyla.

438. **HYLA PICKERINGI** HOLBROOK.
Pickering's Hyla.

439. **HYLA FEMORALIS** DAUDIN.
Femoral Hyla.

440. **HYLA VERSICOLOR** LE CONTE.
Chameleon Hyla.

441. **HYLA ARENICOLOR** COPE.
Cope's Hyla.

442. **HYLA CADAVERINA** COPE.
Cadaverous Hyla.

443. **HYLA GRATIOSA** LE CONTE.
Florida Hyla.

444. **SMILISCA BAUDINI** DUMÉRIL.
Van Vliet's Frog.

445. **LITHODYTES RICORDI** DUMÉRIL and BIBRON.
Ricord's Frog.

446. **LITHODYTES LATRANS** COPE.
Robber Frog.

447. **SYRRHOPUS MARNOCKI** COPE.
Marnock's Frog.

448. **EPIRHEXIS LONGIPES** BAIRD.
Long-footed Frog.

449. **SPEA BOMBIFRONS** COPE.
Cope's Spea.

450. **SPEA HAMMONDI** BAIRD.
Hammond's Spea.

451. **SPEA MULTIPLICATA** COPE.
Many-ribbed Spea.

452. **SPEA STAGNALIS** COPE.
New Mexican Spea.

453. **SCAPHIOPUS VARIUS VARIUS** COPE.
Cape St. Lucas Spade Foot.

454. **SCAPHIOPUS VARIUS RECTIFRENIS** COPE.
Sonora Spade Foot.

455. **SCAPHIOPUS COUCHI** BAIRD.
Couch's Spade Foot.

456. **SCAPHIOPUS HOLBROOKI** HARLAN.
Holbrook's Spade Foot.

457. **RANA AREOLATA AREOLATA** (BAIRD and GIRARD) COPE.
Texas Frog.

458. **RANA AREOLATA CAPITO** (BAIRD and GIRARD) COPE.
Florida Frog.

459. **RANA MONTEZUMÆ** BAIRD.
Montezuma's Frog.

460. **RANA HALECINA HALECINA** (KALM) COPE.
Shad Frog.

461. **RANA HALECINA BERLANDIERI** (KALM) COPE.
Berlandier's Frog.

462. **RANA PALUSTRIS** LE CONTE.
Swamp Frog.

463. **RANA SEPTENTRIONALIS** BAIRD.
Rocky Mountain Frog.

464. **RANA CLAMITANS** MERREM.
Spring Frog.

465. **RANA CATESBIANA** SHAW.
Bull Frog; "Bloody Nouns."

466. **RANA TEMPORARIA AURORA** (LINN.) COPE.
Western Wood Frog.

467. **RANA TEMPORARIA SILVATICA** (LINN.) COPE.
Wood Frog.

468. **RANA TEMPORARIA CANTABRIGENSIS** (LINN.) COPE.
Cambridge Frog.

469. **RANA PRETIOSA** BAIRD.
Pacific Frog.

CHECK LIST OF RESERVE AND GENERAL SERIES.

The following note refers to the list of testudinata which Mr. True has prepared.

H. C. YARROW,
Honorary Curator Dept. Rept.

WASHINGTON, *April* 18, 1882.

SIR: There are some changes that may be necessary in the nomenclature of this list which can be settled only after further investigation. For example, the genera *Thalassochelys* and *Eretmochelys* are doubtfully accredited to Fitzinger and *Amyda* to Agassiz. The stickler, I suppose, would prefer *Dermochelys* the original name as written by De Blainville, to *Dermatochelys*. If we adopt the former we shall have to adopt *Malaclemys* or *Malaclemmys* of Gray, rather than *Malacoclemmys*, the name as amended by Agassiz. Again, strict rules would force us to use *Macroclemys* or *Macroclemmys* for Gray's later name, *Macrochelys*, although the former was a misprint, according to that author. I should like to review the case of *Cinosternum pennsylvanicum* before coming to a decision.

Malacoclemmys Lesueuri is undoubtedly a prior name to *pseudogeographicus*, and a better one, I think. *Chrysemys dorsalis*, which Cope suppressed in his check-list, appears to me to be a good species, and the same is the case with *C. marginata*. *C. Bellii* antecedes and includes *C. oregonensis*. Not having Schneider's "Schildkröten," I am doubtful whether *Chelopus guttatus* must give place to *C. anonymus*, though I am suspicious that it must. *Cistudo carolina*, (Linn.) Gray, I believe to be the only proper name for the Box-tortoise.

FREDERICK W. TRUE.

Dr. H. C. YARROW,
Honorary Curator Dept. Rept.

(1.) ALLIGATOR MISSISSIPPIENSIS Daudin.

Holbrook, N. A. Herp., 1842, ii, 53.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
8873	2	Jacksonville, Fla...	—— —, 1875	F. C. Goode	Alcoholic.
8293	1	Wilmington, N. C ..	.....	.....	Do.
8231	1	Saint John's, Fla...	.....	G. Brown Goode ...	Do.
3184	2	Brownsville, Tex ...	.....	.....	Do.
9268	1	.....	.....	J. D. Palmer	Do.
9547	1	Florida	Feb. 14, 1878	Dr. T. H. Bean	Do.
9923	1	Pensacola, Fla	June —, 1878	Silas Stearns.....	Do.
11402	1	Fort Macon, N. C...	—— —, 1871	Dr. H. C. Yarrow ...	Do.
	1	(?)	.....	.....	Cranium.
11990	1	Florida	.....	G. A. Boardman	Skeleton.
	12				

GENERAL SERIES.

10373	1	Florida	Aug. 4, 1879	Dr. J. M. Toner.....	Alcoholic.
10705	1	Sanford, Fla.....	Nov. —, 1877	D. S. Way.....	Do.
10706	1	....do	Nov. —, 1877	....do	Do.
10703	1	Gainesville, Fla	.....	James Bell.....	Do.
10573	1	Florida	May —, 1881	J. W. Howard.....	Do.
11081	11	(?)	.....	.....	Do.
11051	1	Florida	May 12, 1881	J. W. Howard.....	Do.
10827	1	Gainesville, Fla	.....	James Bell.....	Do.
10510	1	Florida	—— —, 1880	R. B. Broadhead....	Do.
9443	1	(?)	.....	.....	Do.
10587	1	Clearwater, Fla	July 14, 1879	S. T. Walker	Do.
	21				

(2.) CROCODILUS AMERICANUS Seba.

Duméril and Bibron, Erp. Gén., 1836, iii, 119.

RESERVE SERIES.

	1	Florida	.....	.....	Skin.
14874	1	Biscayne Bay, Fla ..	.....	H. A. Ward	Skeleton.
	2				

(3.) DERMATOCHELYS CORIACEA (Vandelli) Strauch.

Holbrook, N. A. Herp., 1842, ii, 45.

RESERVE SERIES.

6526	1	New York market ..	.....	.....	Alcoholic.

(4.) THALASSOCHELYS CARETTA (Linn.) True.

Holbrook, N. A. Herp., 1842, ii, 33.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
7702	1	Garden Key, Fla			Alc. Jun.
7419	1	Jamaica?		C. B. Adams	Do.
	2				

(7.) ERETMOCHELYS SQUAMATA Agassiz.

Agassiz, Cont. Nat. Hist. U. S., 1857, i, 382.

RESERVE SERIES.

12390	1	Cuba (?)		C. Wright	Alcoholic.
12391	1	do		Dr. Gundlach	Do.
12393	1	Morocco			Do.
12394	1	Cuba		C. Wright	Do.
	4				

(8.) CHELONIA MYDAS (Linn.) Schweigger.

Holbrook, N. A. Herp., 1842, ii, 25.

RESERVE SERIES.

11140	1	Waukegan, Ill	Nov. 18, 1879	J. W. Milner	Dry.
6476	1	Beaufort, N. C	— —, 1871	Dr. H. C. Yarrow	Alcoholic.
8391	1	New York Market		E. G. Blackford	Cast.

(9.) CHELONIA VIRGATA Schweigger.

Agassiz, Cont. Nat. Hist. U. S., 1857, i, 379.

RESERVE SERIES.

5919	1	Cape St. Lucas, Cal.		J. Xantus	Alcoholic.

(10.) AMYDA MUTICA (Les.) Agassiz.

Lesueur, Mém. de Mus. d'Hist. Nat., Par., 1827, xv, 263.

RESERVE SERIES.

8337	1	Madison, Ind			Alcoholic.
4783	1	(?)			Do.
9647	1	Mount Carmel, Ill	May —, 1878	Robert Ridgway	Do.
9650	1	do	May —, 1878	do	Do.
9648	1	do	May —, 1878	do	Do.
7646	1	Saint Louis, Mo		Dr. Geo. Engelmann	Do.
9646	1	Mount Carmel, Ill	May —, 1878	Robert Ridgway	Do.
9727	1	do			Do.
7659	2	Illinois		R. Kennicott	Do.
11630	1	Gainesville, Fla	July —, 1880	James Bell	Do.
7746	1	Fort Smith, Ark			Do.
11629	1	(?)			Do.
	13				

(11.) ASPIDONECTES FEROX Wagler.

Wagler, Nat. Syst., 1830, ii, 35.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
7651	1	Palatka, Fla	— —, 1872	T. Glover	Alcoholic.
8359	1	Madison, Ind			Do.
9670	1	Charleston, S. C	— —, 1878	C. C. Leslie	Do.
8708	1	Milledgeville, Ga	— —, 1876	Dr. T. H. Bean	Alcoholic & cast.
8925	1	Brownsville, Tex	— —, 1877	Dr. J. C. Merrill, U. S. A.	Alcoholic.
	5				

(12.) ASPIDONECTES SPINIFER (Les.) Agassiz.

Lesueur, Mém. de Mus. d'Hist. Nat., Par., xv, 258.

RESERVE SERIES.

9928	1	Webster City, Iowa	— —, 1878	Charles Aldrich	Alcoholic.
12061	1	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
7649	1	Fort Laramie, Nebr			Do.
7648	1	do		Dr. F. V. Hayden	Do.
7650	1	Abbeville, S. C			Do.
7661	1	Illinois		R. Kennicott	Do.
11631	1	Prairie Mer Rouge, La.			Do.
11609	1	Fox River, Ill	Aug. 21, 1875	Robert Ridgway	Do.
9654	1	Mount Carmel, Ill	May —, 1878	do	Do.
	9				

(15.) ASPIDONECTES EMORYI Agassiz.

Agassiz, Cont. Nat. Hist. U. S., 1857, i, 407.

RESERVE SERIES.

7642	1	Brownsville, Tex			Alcoholic.
7644	1	do			Do.
7624	1	Matamoras, Mex		Lt. B. Couch, U.S.A.	Do.
7617	1	do		do	Do.
7637	1	Rio Bravo, Tex		A. Schott	Do.
7701	1	Rio Grande		G. Wurdemann	Do.
7747	1	Rio Seco, Tex		Capt. John Pope, U. S. A.	Do.
7700	1	Braunfels, Tex			Do.
7176	1	Old Fort Cobb, Tex	May 4, 1868	Dr. E. Palmer	Do.
7855	1	Brownsville, Tex		Dr. C. B. R. Kennerly	Do.
	10				

(16.) CHELYDRA SERPENTINA (Linn.) Schw.

Holbrook, N. A. Herp., 1842, i, 139.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
11636	1	Sydney, Nebr	Feb. 10, 1876	Dr. A. J. Kite, U. S. N.	Alcoholic.
9285	1	Havre de Grace, Md	June 14, 1876	A. L. Kumlien	Alcoholic & cast.
9724	1	Mount Carmel, Ill	May —, 1878	J. Schneck	Alcoholic.
9738	1	Webster City, Iowa	May —, 1878	Charles Aldrich	Do.
7674	1	Carlisle, Pa		Prof. S. F. Baird	Do.
12056	1	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
4782	1	Kansas			Do.
2916	1	Washington, D. C	May 1, 1877	Prof. S. F. Baird	Do.
10369	1	Clearwater, Fla	Sept. —, 1879	S. T. Walker	Do.
11638	1	Wheatland, Ind	May —, 1881	Robert Ridgway	Do.
9558	1	Oakley, S. C	1879	F. W. Hayward	Do.
	11				

(17.) MACROCHELYS LACERTINA (Schw.) Cope.

Holbrook, N. A. Herp., 1842, i, 147.

RESERVE SERIES.

12345	2	Northville, Mich		Frank N. Clark	Alcoholic.

(18.) AROMOCHELYS ODORATA (Latr.) Gray.

Holbrook, N. A. Herp., 1842, i, 133.

RESERVE SERIES.

7561	1	Charleston, S. C		Dr. C. Girard	Alcoholic.
7656	1	Monticello, Miss		Miss Helen Tunnison	Do.
7566	1	Berks County, Pa		G. Wurdemann	Do.
14	1	Chicago, Ill		R. Kennicott	Do.
7	1	Upper Darby, Pa			Do.
11605	1	District of Columbia		F. W. True	Do.
8966	1	Palatka, Fla	July 15, 1869	T. Glover	Do.
7564	1	Carlisle, Pa			Do.
	8				

(19.) AROMOCHELYS CARINATA Gray.

Agassiz, Cont. Nat. Hist. U. S., 1857, i, 423.

RESERVE SERIES.

11634	1	Nashville, Ga	July 19, 1880	W. S. Taylor	Alcoholic.
12010	4	Georgiana, Fla		R. Kennicott	Do.
69	1	San Pedro, Tex		Dr. C. B. R. Kennerly	Do.
7890	1	Medina River, Tex		do	Do.
72	1	San Pedro, Tex		do	Do.
71	1	do		do	Do.
10210	1	San Antonio, Tex	May —, 1879	C. W. Scheurmann	Do.
	10				

(20.) CINOSTERNUM PENNSYLVANICUM PENNSYLVANICUM (Bosc.) Gray.

Holbrook, N. A. Herp., 1842, i, 127

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
7585	1	Palatka, Fla	—— —, 1869	T. Glover	Alcoholic.
8383	1	Virginia, near District of Columbia.	July —, 1875	P. L. Jouy	Do.
9030	1	Arlington, Va	June —, 1877	William Palmer	Do.
9	1	Charleston, S. C		Dr. C. Girard	Do.
4	1	Tarboro', N. C		J. L. Bridger	Do.
5	1	....do		....do	Do.
7556	1	East Florida		G. Wurdemann	Do.
	7				

(22.) CINOSTERNUM SONORIENSE Le Conte.

Le Conte, Proc. Acad. Nat. Sci. Phila., 1854, 184.

RESERVE SERIES.

63	1	Guadalupe Cañon, Ariz.		Dr. C. B. R. Kennerly	Alcoholic.
67	1	Tucson, Ariz		A. Schott	Do.
7874	1	(?)			Do.
11645	1	Arizona		H. W. Henshaw	Do.
	4				

(23.) CINOSTERNUM FLAVESCENS (Agassiz) Cope.

Agassiz, Cont. Nat. Hist. U. S., 1857, i, 430.

RESERVE SERIES.

7892	1	Fort Yuma, Cal		R. O. Abbott	Alcoholic.
50	1	Rio Blanco		Dr. C. B. R. Kennerly	Do.
7549	1	Fort Union, N. Mex.		H. B. Mollhausen	Do.
8185	1	Utah	—— —, 1872	Dr. H. C. Yarrow	Do.
	4				

(24.) CINOSTERNUM HENRICI Le Conte.

Le Conte, Proc. Acad. Nat. Sci. Phila., 1854, 182.

RESERVE SERIES.

8603	1	Ash Creek, Ariz	July —, 1874	H. W. Henshaw	Alcoholic.

(25.) PSEUDEMYS RUGOSA (Shaw) Cope.

Holbrook, N. A. Herp., 1842, i, 55.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
7662	1	Beesley's Point, N. J	.....	Prof. S. F. Baird...	Alcoholic.
6587	3	Washington, D. C ..	.....	.....	Do.
11649	1	Ferry Landing, Va .	May 29, 1875	H. W. Welsher.....	Do.
8910	1	Kinston, N. C	May —, 1875	J. W. Milner	Do.
8920	1	Wilmington, N. C..	.....	Davis	Cast.
	7				

(26.) PSEUDEMYS CONCINNA (Le Conte) Gray.

Holbrook, N. A. Herp., 1842, i, 119, 65.

RESERVE SERIES.

11635	2	(?).....	.....	.....	Alcoholic.
8909	1	St. John's River, Fla	—— —, 1874	G. Brown Goode...	Do.
8908	1	....do.....	Apr. —, 1877	Prof. S. F. Baird....	Alcoholic & cast.
18	1	Tarboro', N. C	.....	J. L. Bridger.....	Alcoholic.
7588	1	Palatka, Fla	.....	T. Glover.....	Do.
7590	1	....do	.....	....do	Do.
7173	1	Old Fort Cobb, Tex.	June 1, 1868	Dr. E. Palmer.....	Shell.
9561	6	Pensacola, Fla.....	Mar. —, 1878	.....	Alcoholic.
8927	2	Brownsville, Tex ...	May —, 1877	Dr. J. C. Merrill, U. S. A.	Do.
	16				

(27.) PSEUDEMYS MOBILENSIS Holbrook.

Holbrook, N. A. Herp., 1842, i, 71.

RESERVE SERIES.

9026	1	Mandeville, La	June —, 1877	G. Kohn.....	Alcoholic & cast.

(29.) PSEUDEMYS SCABRA (Linn.) Cope.

Holbrook, N. A. Herp., 1842, i, 49.

RESERVE SERIES.

1	1	Charleston, S. C	.....	.....	Alcoholic.
11612	2	Nashville, Ga.....	.....	.....	Shell.
16243	1	Charleston, S. C	.....	Dr. G. E. Manigault	Skeleton.
	4				

(30.) PSEUDEMYS TROOSTI (Holbr.) Cope.

Holbrook, N. A. Herp., 1842, i, 123.

RESERVE SERIES.

11639	1	Wheatland, Ind	May —, 1881	Robert Ridgway...	Alcoholic.

(31.) PSEUDEMYS ELEGANS (Pr. Max. Wied.) Cope.

Holbrook, N. A. Herp., 1842, i, 115.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
11647	1	Fort Union, N. Mex.	—— —, 1875	Peter Connell	Alcoholic.
8827	1	Rutherford Co., Tenn		J. N. B. Scarborough	Do.
7580	1	Matamoras, Mex			Do.
7582	1	Prairie Mer Rouge, La.			Do.
7600	1	Pacific Railroad Survey, 32° lat.		Capt. John Pope, U. S. A.	Do.
7583	1	Neosho Valley, Kans		B. Y. Gould	Do.
82	1	Brownsville, Tex		G. Wurdemann	Do.
11627	4	(?)			Do.
7581	1	Matamoras, Mex			Do.
7584	1	Fort Riley, Kans			Do.
9016	1	Brownsville, Tex	May —, 1877	Dr. J. C. Merrill, U. S. A.	Do.
12064	2	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
12067	1	...do	Nov. —, 1881	....do	Do.
10314	1	Oakley, S. C	May —, 1879	F. W. Hayward	Do.
10530	1	(?)			Do.
9663	1	Saint Louis, Mo			Do.
56	1	Yellowstone River		Dr. F. V. Hayden	Do.
9026	2	Mandeville, La	June —, 1877	G. Kohn	Do.
	23				

(32.) PSEUDEMYS ORNATA Gray.

Gray, Cat. Shield Rept. Brit. Mus., 1855, 24.

RESERVE SERIES.

11622	1	La Paz, Cal	Feb. —, 1882	L. Belding	Shell.

(33.) MALACOCLEMMYS GEOGRAPHICUS (Les.) Cope.

Holbrook, N. A. Herp., 1842, i, 99.

RESERVE SERIES.

12062	3	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Alcoholic.
9606	5	....do	Apr. —, 1878	Mrs. M. E. Turner	Do.
20	2	(?)			Do.
9730	1	Mount Carmel, Ill	May —, 1878	J. Schneck	Do.
11623	5	(?)			Do.
7576	1	Marietta, Ohio		Prof. E. B. Andrews.	Do.
9645	1	Mount Carmel, Ill	May —, 1878	Robert Ridgway	Do.
9657	1	....do	May —, 1878	....do	Do.
6719	1	Sandusky, Ohio		J. W. Milner	Do.
6721	1	....do			Do.
8808	1	Montgomery, Ala	July —, 1876	Dr. T. H. Bean	Alcoholic & cast.
	22				

(34.) MALACOCLEMMYS LESUEURI (Gray) True.

Gray, Cat. Shield Rept. Brit. Mus., 1855, 29.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
12070	1	Mount Carmel, Ill..	—— —, 1881	L. M. Turner	Alcoholic.
10325	1	....do	—— —, 1879	J. Schneck.....	Do.
7610	1	Republican River, Kans.	.....	W. Wood	Do.
79	1	Marion County, Mo.	.....	Lt. A. W. Whipple, U. S. A.	.....
7868	1	(?)	.....	.....	Alcoholic.
7751	1	Columbus, Ohio	—— —, 1872	Prof. L. Lesquereux	Alcoholic jun.
9721	1	Mount Carmel, Ill..	—— —, 1878	J. Schneck.....	Alcoholic.
	7				

(35.) MALACOCLEMMYS PALUSTRIS (Gmel.) Agassiz.

Holbrook, N. A. Herp., 1842, i, 87.

RESERVE SERIES.

11632	3	New York market ..	Nov. 27, 1875	E. G. Blackford	Alcoholic.
11624	1	(?)	.....	.....	Do.
6592	4	(?)	.....	.....	Do.
6590	1	Beesley's Point, N. J	.....	Prof. S. F. Baird....	Do.
6591	1	Indian River. Fla...	.....	G. Wurdemann	Do.
27	1	Washington market, D. C.	.....	.....	Do.
8709	1	Washington market,	Feb. —, 1877	J. W. Milner.... ...	Alcoholic & cast.
	12				

(36.) CHRYSEMYS PICTA (Herm.) Gray.

Holbrook, N. A. Herp., 1842, i, 75.

RESERVE SERIES.

11633	1	(?)	.....	.....	Alcoholic.
8375	1	(?)	.....	.....	Do.
7676	1	Washington, D. C...	.....	.....	Do.
7679	1	Framingham, Mass .	.....	.....	Do.
7684	1	Washington, D. C...	.....	.....	Do.
7682	1	Madras, N. Y.....	.....	.....	Do.
7681	1	....do	.....	.....	Do.
7678	1	Framingham, Mass .	.....	.....	Do.
8353	1	York River, Va	—— —, 1875	Fred. Mather	Do.
9612	1	Webster City, Iowa.	April —, 1878	Charles Aldrich....	Do.
11602	1	District of Columbia.	.....	F. W. True.....	Do.
11640	1	(?)	.....	.....	Do.
11641	1	(?)	.....	.....	.....
9550	1	Mount Carmel, Ill...	Mar. —, 1878	J. Schneck.....	Do.
	14				

(37.) CHRYSEMYS MARGINATA Agassiz.

Agassiz, Cont. Nat. Hist. U. S., 1857, i, 439.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
9970	3	(?)			
12063	2	Mount Carmel, Ill.	— —, 1881	L. M. Turner	Alcoholic.
12065	2	do	— —, 1881	do	Do.
12068	1	do	— —, 1881	do	Do.
7871	1	Racine, Wis			
7687	1	do	— —, 1853	Prof. S. F. Baird	Do.
7685	1	Illinois		R. Kennicott	Do.
7686	1	Poland County, Ohio.		Prof. S. F. Baird	Do.
7690	1	(?)			
7742	1	Madison, Wis.	— —, 1853		
	14				

(38.) CHRYSEMYS DORSALIS Agassiz.

Agassiz, Cont. Nat. Hist. U. S., 1857, i, 440.

RESERVE SERIES.

21	1	Washington, Miss.		Col. B. L. C. Wailes.	Alcoholic type.

(39.) CHRYSEMYS BELLI Gray.

Gray, Cat. Shield Rept. Brit. Mus., 1855, 33.

RESERVE SERIES.

7691	1	Republican R., Kans.		W. S. Wood	Alcoholic.
4784	1	(?)			
7585	1	Fort Snelling, Minn.			
11650	1	North Red River		R. Kennicott	
11646	1	Fort Walla Walla, Wash. Ter.	— —, 1881	Capt. Chas. Bendire, U. S. A.	
8764	1	Rio Grande, N. Mex.	— —, 1873	Dr. O. Loew	Alcoholic.
55	1	Yellowstone River		Dr. F. V. Hayden	Do.
	7				

(40.) CHRYSEMYS RETICULATA (Bosc.) Cope.

Holbrook, N. A. Herp., 1842, i, 59.

RESERVE SERIES.

10744	1	Clearwater, Fla	Aug. 26, 1879	S. T. Walker	Alcoholic.
9611	1	Florida	Apr. —, 1878	G. Brown Goode	Do.
6588	1	Pensacola, Fla		Dr. R. W. Jeffrey	Do.
17	2	Prairie Mer Rouge, La.			Do.
7698	1	(?)			Do.
11610	1	(?)			Do.
	7				

(41.) CHELOPUS GUTTATUS (Schw.) Cope.

Holbrook, N. A. Herp., 1842, i, 81.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
8864	1	Alexander Co., Va..	—— —, 1875	P. L. Jouy	Alcoholic.
11603	2	District of Columbia	.....	F. W. True.....	Do.
11646	1	Bradford Co., Pa....	June —, 1881	Capt. Chas. Bendire, U. S. A.	Do.
6589	1	Upper Darby, Pa ...	.....	.....	Do.
4874	1	Norfolk, Va	.....	.....	Do.
7305	1	Washington, D. C ..	.....	.....	Do.
9022	1	Trenton, N. J	—— —, 1875	Dr. C. C. Abbott....	Do.
	8				

(42.) CHELOPUS MUHLENBERGI (Schw.) Cope.

Holbrook, N. A. Herp., 1842, i, 45.

RESERVE SERIES.

10388	3	Statesville, N. C	Oct. —, 1879	A. L. Barringer.....	Alcoholic.
7550	2	Upper Darby, Pa ...	.....	.....	Do.
	5				

(43.) CHELOPUS INSCULPTUS (Le Conte) Cope.

Holbrook, N. A. Herp., i, 1842, 93.

RESERVE SERIES.

8904	1	Bainbridge, Pa	Apr. 12, 1877	Dr. T. H. Bean	Alcoholic.
7869	1	(?).....	.....	.....	Do.
9526	1	Philadelphia, Pa....	Feb. —, 1878	Prof. S. F. Baird	Do.
10547	1	Schenectady, N. Y ..	Mar. —, 1881	Henry Coppie.....	Do.
11643	1	(?).....	.....	.....	Do.
	5				

(44.) CHELOPUS MARMORATUS (B. & G.) Cope.

Hallowell, U. S. P. R. R. Surv. (Williamson's Rept.), 1857, x, 3.

RESERVE SERIES.

54	1	San Francisco, Cal..	.....	.....	Alcoholic.
7538	1	Fort Tejon, Cal	.....	J. Xantus.....	Do.
88	1	Puget Sound, Oreg..	.....	.....	Do.
77	1	Fort Steilacoom, Wash. Terr.	.....	Dr. Geo. Suckley, U. S. A.	Do.
25	2	Monterey, Cal	.....	A. S. Taylor.....	Do.
7595	1	Puget Sound, Oreg..	.....	.....	Do.
7596	1	....do.....	.....	.....	Do.
7594	1	....do.....	.....	.....	Do.
9294	2	Sonora.....	.....	.....	Do.
9971	3	Nicasio, Cal	Aug. 19, 1878	Charles Allen	Do.
9931	1	San Francisco, Cal..	—— —, 1878	F. Gruber.....	Do.
10158	1	San Diego, Cal	May —, 1879	George N. Hitchock.	Do.
	16				

(45.) EMYS MELEAGRIS (Shaw) Cope.

Holbrook, N. A. Herp., 1842, i, 39.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
9934	1	Chicago, Ill	—— —, 1878	J. W. Velie	Alcoholic.
9935	1	....do	—— —, 1878	....do	Do.
	2				

(46.) CISTUDO CAROLINA (Linn.) Cope.

Gray, Cat. Shield Rept. Brit. Mus., 1855, 39.

RESERVE SERIES.

52	1	San Antonio, Tex		Dr. C. B. R. Kennerly	Alcoholic.
11600	1	District of Columbia	—— —, 1881	P. L. Jouy	Do.
11648	1	Ferry Landing, Va	—— —, 1875	H. W. Welsher	Do.
11606	1	(?)			Do.
9155	1	Pennsylvania	—— —, 1877	J. H. Richard	Do.
9176	1	....do	—— —, 1877	....do.	Do.
9512	1	Mount Carmel, Ill	—— —, 1878	J. Schneck	Do.
9164	1	Pennsylvania	—— —, 1877	J. H. Richard	Do.
9939	1	Fairfield, Ill	—— —, 1878	N. E. Roberts	Do.
	9				

(47.) CISTUDO CAROLINA TRIUNGUIS (Linn.) Cope.

Agassiz, Const. Nat. Hist. U. S., 1857, i, 445.

RESERVE SERIES.

7545	2	Mississippi		Col. B. L. C. Wailes	Alcoholic.
53	1	San Antonio, Tex		Dr. C. B. R. Kennerly	Do.
8352	1	Florida	—— —, 1875	Prof. F. B. Meek	Do.
9865	1	Saint Louis, Mo	June —, 1878	Dr. Geo. Englemann	Do.
7546	1	(?)			Do.
22	1	Washington Ter		Col. B. L. C. Wailes	Do.
	7				

(48.) CISTUDO ORNATA Agassiz.

Agassiz, Cont. Nat. Hist. U. S., 1857, i, 445.

RESERVE SERIES.

7541	2	Southern boundary Kansas.		Wood & Clark	Alcoholic.
7542	4	Illinois		R. Kennicott	Do.
7547	1	Republican River, Nebr.		W. S. Wood	Do.
9938	1	Fairfield, Ill	June —, 1878	N. E. Roberts	Do.
9937	1	....do	June —, 1878	....do	Do.
9940	1	....do	June —, 1878	....do	Do.
	10				

(49.) XEROBATES POLYPHEMUS (Daudin) Cope.

Holbrook, N. A. Herp., 1842, i, 25.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
9608	2	Florida	— —, 1878	G. Brown Goode	Alcoholic.
9627	1	Florida	— —, 1878	G. Brown Goode	Alcoholic & cast.
4778	2	Micanopy, Fla	1859	Dr. J. H. Bean	Alcoholic.
7555	4	Florida		G. Wurdemann	Do.
10070	1	Homosassa, Fla	— —, 1879	J. W. Milner	Do.
10057	1	Clearwater, Fla	— —, 1879	S. T. Walker	Do.
10158	1	(?)	— —, 1879	G. N. Hitchcock	Shell.
	12				

(50.) XEROBATES AGASSIZI Cooper.

Cooper, Proc. Calif. Acad. Sci., 1863, ii, 120.

RESERVE SERIES.

7888	1	Salado Valley, Cal.		Dr. J. G. Cooper	Alcoholic.
10398	1	Fort Yuma, Cal.	Nov. —, 1879	Dr. J. K. Corson, U. S. A.	Do.
10399	1	do	Nov. —, 1879	do	Do.
6718	1	Fort Mohave, Cal.		Dr. W. J. Hoffman	Do.
	4				

(51.) XEROBATES BERLANDIERI Agassiz.

Agassiz, Cont. Nat. Hist. U. S., 1857, i, 447.

RESERVE SERIES.

60	2	Lower Rio Grande, Tex.			Alcoholic type.
10412	1	Fort Yuma, Cal.			Do.
	3				

(52.) CHIROTES CANALICULATUS Cuvier.

Duméril and Bibson, Erp. Gén., 1839, v, 474.

RESERVE SERIES.

8868	1	La Paz, Cal.		Dr. T. H. Streets, U. S. N.	Alcoholic.
10390	12	do	Feb. —, 1882	L. Belding	Do.
	13				

(53.) RHINEÜRA FLORIDANA Baird.

Cope, Proc. Acad. Nat. Sci. Phila., 1861, 75.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
8371	1	Manatee, Fla		N. B. Moore	Alcoholic.
8974	4	Florida			Do.
8900	1	Saint John's, Fla	April—, 1877	Prof. S. F. Baird	Do.
3202	1	Micanopy, Fla		Dr. J. B. Barratt	Alcoholic type.
	7				

(54.) ANIELLA PULCHRA Gray.

Gray, Ann. & Mag. Nat. Hist., 1852, 2 s., x, 440.

RESERVE SERIES.

3189	1	San Francisco, Cal		R. D. Cutts	Alcoholic.
3185	2	San Diego, Cal		Dr. J. L. Le Conte	Do.
3187	1	Monterey, Cal		A. S. Taylor	Do.
4690	1	do		do	Do.
11575	1	do		Lt. Mullen, U. S. A.	Do.
11874	1	San Diego, Cal		Prof. D. S. Jordan	Do.
9741	1	Kern Co., Cal	May —, 1878	J. R. Shepherd	Do.
	8				

(55.) OLIGOSOMA LATERALE Say.

Holbrook, N. A., 1842, Herp., ii, 133.

RESERVE SERIES.

5080	1	Wheelock, Tex			Alcoholic.
4972	3	Anderson, S. C		Major M. E. Daniel	Do.
5010	3	Calcasieu Pass, La		G. Wurdemann	Do.
5053	3	Grand Coteau, La		St. Charles Coll	Do.
8334	3	Kinston, N. C		J. W. Milner	Do.
8805	7	Augusta, Ga		Wm. Phillips	Do.
6072	1	Fort Scott, Kans		Lt. Eustis, U. S. A	Do.
5009	1	Russellville, Ky			Do.
9217	12				Do.
9218	4				Do.
5086	1	New Orleans, La		N. O. Academy	Do.
9302	1	West Northfield, Ill		R. Kennicott	Do.
4971	1	Salem, N. C		J. T. Lineback	
10906	1	Wheatland, Ind	April —, 1881	Robert Ridgway	Alcoholic.
3175	12	Charleston, S. C			Do.
11864	3	Clearwater, Fla	July 14, 1879	S. J. Walker	Do.
12057	1	Mt. Carmel, Ill.	—— —, 1880	L. M. Turner	Do.
	58				

GENERAL SERIES.

11919	2	Nashville, Ga	Aug. 14, 1880	W. J. Taylor	Alcoholic.
9218	2	(?)			Do.
9282	2	(?)			Do.
9213	3	(?)			Do.
	9				

(56.) EUMECES SEPTENTRIONALIS Baird.

Baird, Proc. Acad. Nat. Sci. Phila., 1858, 256.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
3156	3	Fort Ripley, Minn..	.....	.....	Alcoholic.
5325	2	(?).....	.....	.....	Do.
4722	1	Neosho Falls, Kans.	.....	B. F. Goss	Do.
5263	1	North. bound. of Tex	.....	J. H. Clark.....	Do.
9219	1	Fort Kearney, Neb..	.....	.....	Do.
	8				

(65.) EUMECES MULTIVIRGATUS Hallowell.

Hallowell, Proc. Acad. Nat. Sci. Phila. 1857, 215.

RESERVE SERIES.

3122	1	Rio Pecos, Tex	.....	Captain John Pope, U. S. A.....	Alcoho
4139	1	Sandhills, Platte River.	.....	Dr. F. V. Hayden..	Do
	2				

(66.) EUMECES LEPTOGRAMMUS Baird.

Baird, Proc. Acad. Nat. Sci. Phila., 1858, 256.

RESERVE SERIES.

3180		100 miles east of Fort Laramie, Wyo.	.....	Dr. J. G. Cooper ...	Alcoho

(67.) EUMECES OBSOLETUS Baird & Girard.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 129.

RESERVE SERIES.

9048	2	El Paso, Tex.....	.....	J. H. Clark	Alcohol
7842	1	Fort Reynolds.....	.....	A. Clough	Do.
9222	1	Matamoras, Mexico.	.....	.....	Do.
5049	1	Fort Riley, Kans...	.....	H. Brandt	Do.
4770	1	....do.....	.....	....do	Do.
9224	1	Santa Caterina, N. Leon.	.....	Lieut. B. Couch, U. S. A.	Do.
9225	1	Platte River.....	.....	Dr. Wm. A. Hammond, U. S. A.	Do.
8180	1	Utah	.....	Dr. H. C. Yarrow..	Do.
9220	1	Tamaulipas	.....	Lieut. B. Couch, U. S. A.	Do.
9223	1	Mexican Boundary, Texas Survey.	.....	Dr. C. B. C. Kennerly.	Do.
5247	1	Texas.....	.....	J. H. Clark	Do.
9226	1	.....	.....	.....	Do.
9221	1	.....	.....	.....	Do.
3133	1	San Pedro, Tex.....	.....	Col. J. D. Graham, U. S. A.	
	15				

) EUMECES GUTTULATUS Hallowell.

Sitgreaves' Report, Zuñi, 1853, 113.

RESERVE SERIES.

Locality.	When collected.	From whom received.	Nature of specimen.
a	— —, 1871	Expl. W. of 100th M.	Alcoholic.
	— —, 1871	do	Do.
8°, P. R. S.		Lieut. E. G. Beckwith, U. S. A.	Do.

UMECES SKILTONIANUS Baird & Girard.

d, Stansbury's Rep. Salt Lake, 1852, 349.

RESERVE SERIES.

rnia		Dr. A. L. Heerman	Alcoholic type.
nd, Cal		K. Hemphill	Alcoholic.
rado Co., Cal.		Dr. C. C. Boyle	Do.
rnia			Do.
			Do.
St. Lucas, Cal.		John Xantus	Do.

(70.) EUMECES FASCIATUS Linn.

brook, N. A. Herp., 1842, ii, 117, 121, 127.

RESERVE SERIES.

ern Illinois		R. Kennicott	Alcoholic.
ngton, D. C			Do.
		P. L. Jouy	Do.
lin Co., Tenn		J. N. B. Scarborough	Do.
ston, S. C			Do.
ille, S. C			Do.
ern Alabama		W. M. Stewart	Do.
, Ala		Prof. A. Winchell	Do.
n, N. C			Do.
ester, Va			Do.
k, Va		Lieut. B. Couch, U. S. A.	Do.
ille, Ky		Prof. J. H. Mitchell	Do.
sippi		Col. B. L. C. Wailes	Do.
		do	Do.
lains, Wisc.		R. Kennicott	Do.
River, Fla		G. Wurdemann	Do.
ern Florida		Dr. J. G. Cooper	Do.
e Mer Rouge,			Do.
			Do.
son, S. C			Do.
er's Pass, Wyo.		W. S. Wood	Do.
Carolina		C. B. Adams	Do.
Berne, N. C		Capt. W. Holden	Do.
ari		Dr. B. F. Shumard	Do.
Louis, Mo		Dr. G. Englemann	Do.
County, Tenn.		Prof. J. H. Mitchell	Do.

[illegible] Continued.

[illegible] 1882, p. 227, 321, 327

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	Dr. L. F. Simmons	Alcohol
[illegible]		[illegible]	[illegible]	do	Do.
[illegible]		[illegible]	July 2, [illegible]	Dr. T. E. [illegible]	Do.
[illegible]		[illegible]	—— —, [illegible]	Dr. L. G. Newcomb	Do.
[illegible]		[illegible]	[illegible]	[illegible]	Do.
[illegible]		[illegible]	[illegible]	William Phillips	Do.
[illegible]		[illegible]	[illegible]	[illegible]	Do.
[illegible]		[illegible]	[illegible]	[illegible]	Do.
[illegible]		[illegible]	[illegible]	[illegible]	Do.
[illegible]		[illegible]	[illegible]	[illegible]	Do.
[illegible]		[illegible]	—— —, [illegible]	Prof. F. L. [illegible]	Do.
[illegible]		[illegible]	[illegible]	G. Brown Goode	Do.
[illegible]		[illegible]	[illegible]	St. Charles [illegible]	Do.
[illegible]		[illegible]	[illegible]	Prof. E. J. [illegible]	Do.
[illegible]		[illegible]	July —, [illegible]	E. E. Jackson	Do.
[illegible]		[illegible]	—— —, [illegible]	L. M. Turner	Do.
[illegible]		do	Nov. —, [illegible]	do	Do.
	9				

GENERAL SERIES.

[illegible]		Arlington, Fla	—— —, 1878	G. Brown Goode	[illegible]
[illegible]		North Carolina		C. B. Adams	[illegible]
	2				

(71.) EUMECES LONGIROSTRIS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1861, 313.

RESERVE SERIES.

[illegible]		Bermuda		G. Brown Goode	Alcohol

(72.) XANTUSIA VIGILIS Baird.

Baird, Proc. Acad. Nat. Sci. Phila., 1858, 255.

RESERVE SERIES.

3063	3	Fort Tejon, Cal		J. Xantus	Alcohol

(73.) CNEMIDOPHORUS MAXIMUS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1863, 104.

RESERVE SERIES.

5297	1	Cape St. Lucas, Cal		J. Xantus	Alcohol
12636	3	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
12662	1	do	do	do	Do.
	5				

(74.) CNEMIDOPHORUS GRAHAMI Baird & Girard.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 128.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
20	32° latitude		Captain John Pope, U. S. A.	Alcoholic.
3	Fort Buchanan, Ariz		Dr. B. J. D. Irwin, U. S. A.	Do.
2	Los Angeles, Cal	—— —, 1875	W. Somers	Do.
1	St. Panos and St. Luis, Mex.		Maj. W. H. Emery, U. S. A.	Do.
26				

(75.) CNEMIDOPHORUS SEXLINEATUS Linn.

Holbrook, N. A. Herp., 1842, ii, 109.

RESERVE SERIES.

30	Kinston, N. C.		Welsher and Quinn	Alcoholic.
2	Camp Grant, Ariz	Sept. —, 1873	J. H. Rutter	Do.
1	Plaza del Alcalde, N. Mex.	Aug. —, 1874	Dr. H. C. Yarrow	Do.
1	Santa Fé, N. Mex		Howard	Do.
1	New Mexico	Oct. —, 1874	Dr. O. Loew	Do.
1	Abiquiu, N. Mex	Sept. —, 1874	G. Thompson	Do.
12	Matamoras, Mex		Lt. B. Couch, U. S. A.	Do.
6	Indian Key, Fla		G. Wurdemann	Do.
1	Micanopy, Fla			Do.
2	Pensacola, Fla		Dr. R. W. Jeffrey	Do.
2	....do			Do.
1	Eutaw, Ala		Prof. A. Winchell	Do.
20	Fort Smith, Ark		Lieut. A. W. Whipple, U. S. A.	Do.
2	Pecos River, Tex		J. K. Townsend	Do.
3	New Braunfels, Tex			Do.
1	Laredo, Tex			Do.
1	Gilmer, Tex		J. N. Glasco	Do.
2	San Antonio, Tex		Dr. C. B. R. Kennerly	Do.
1	New Orleans, La		N. O. Academy	Do.
1	Norfolk, Va		Lt. B. Couch, U. S. A.	Do.
1	....do			Do.
1	Prince George's, Md.			Do.
2	Republican Fork, Mo		Dr. W. L. Jones	Do.
2	Society Hill, S. C		M. A. Curtis	Do.
3	Rome County, Tenn.		Prof. J. H. Mitchell.	Do.
1	Camp Lowell, Ariz	Oct. —, 1874	J. H. Rutter	Do.
4	Arizona	—— —, 1871		Do.
2	Milledgeville, Ga	May —, 1875	Fred. Mather	Do.
2	Montgomery, Ala	July 12, 1876	Kumlien and Bean	Do.
1	Milledgeville, Ga	June 4, 1877	....do	Do.
2	(?)			Do.
1	Republican Fork		Dr. W. A. Hammond, U. S. A.	Do.
2	Arizona		Dr. B. J. D. Irwin, U. S. A.	Do.
1	Micanopy, Fla		Dr. J. H. Bean	Do.
1	San Antonio, Tex	—— —, 1851	Dr. S. W. Woodhouse	Do.

(75.) CNEMIDOPHORUS SEXLINEATUS Linn.—Continued.

Holbrook. N. A. Herp., 1842, ii, 109.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
3006	1	Monterey, New Leon	.....	Lt. B. Couch, U. S. A.	Alcoholic.
9256	1	Piney Point, Md	Sept. —, 1877	Wm. Palmer.....	Do.
8630	1	Southern California.	—— —, 1875	J. A. Hasson.....	Do.
8631	1	Los Angeles, Cal....	—— —, 1875	W. Somers.....	Do.
9592	1	Arlington, Fla.....	Apr. —, 1878	F. C. Goode	Do.
11403	1	Fort Macon, N. C...	—— —, 1871	Dr. H. C. Yarrow ..	Do.
	123				

GENERAL SERIES.

12000	14	Georgiana, Fla	.....	Wm. Wittfield	Alcoholic.
11900	1	Nashville, Ga.....	Aug. 25, 1880	W. I. Taylor.....	Do.
11867	2	Arlington, Fla.....	—— —, 1878	G. Brown Goode....	Do.
10590	1	Clearwater, Fla	July 14, 1879	S. T. Walker	Do.
10791	1	San Antonio, Tex...	June —, 1879	C. W. Schuermann .	Do.
10592	1	Clearwater, Fla	July 14, 1879	S. T. Walker	Do.
10602	1	Middletown, Conn ..	April 18, 1880	R. E. Earl.....	Do.
10591	1	Clearwater, Fla	July 14, 1879	S. T. Walker.....	Do.
10603	1	Saint Mary's Co., Md	April 18, 1880	J. A. Ryder.....	Do.
10792	1	San Antonio, Tex...	June —, 1879	C. W. Schuermann.	Do.
9951	1	Little Sarasota Bay, Fla.	—— —, 1875	Prof. F. B. Meek...	Do.
9292	1	(?).....	.....	.....	Do.
	26				

(78.) CNEMIDOPHORUS PERPLEXUS Baird & Girard.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 128.

RESERVE SERIES.

3050	2	Texas.....	.....	Gen. Churchill, U. S. A.	Alcoholic.
3030	1	.... do.....	.....	Dr. C. B. R. Kennerly	Do.
8519	1	San Ildefonso, N. M.	Aug. —, 1874	Dr. H. C. Yarrow ...	Do.
	4				

(79.) CNEMIDOPHORUS TESSELLATUS TESSELLATUS (Say) Cope.

Baird, U. S. P. R., Beckwith's Rep., 1859, x, 18.

RESERVE SERIES.

3026	.....	Near 38th parallel..	.....	Lt. E. G. Beckwith, U. S. A.	Alcoholic.

0.) CNEMIDOPHORUS TESSELLATUS TIGRIS (Say) Cope.

Baird & Girard, Stansbury's Rep. Salt Lake, 1852, 838.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	Fort Tejon, Cal	.....	J. Xantus	Alcoholic.
1	Pecos River, Tex	.....	.....	Do.
1	Laredo, Tex	.....	Major W. H. Emory, U. S. A.	Do.
2	Fort Tejon, Cal	.....	J. Xantus	Do.
1	Coahuila, Mex	.....	Lt. B. Couch, U. S. A.	Do.
1	Fort Tejon, Cal	July —, 1875	H. W. Henshaw	Do.
1	El Dorado Co., Cal	.....	Dr. C. C. Boyle	Do.
8				

EMIDOPHORUS TESSELLATUS MELANOSTETHUS (Say) Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1863, 104.

RESERVE SERIES.

12	Exploration, Colorado River.	.....	H. B. Mollhausen	Alcoholic.
5	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
17				

) CNEMIDOPHORUS TESSELLATUS GRACILIS (Say) Cope.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 128.

RESERVE SERIES.

1	Colorado Desert	.....	Dr. J. L. Le Conte	Alcoholic.

(83.) VERTICARIA HYPERYTHRA Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1863, 103.

RESERVE SERIES.

12	Cape St. Lucas, Cal	.....	J. Xantus	Alcoholic.
16	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
2	....do	Feb. —, 1882	....do	Do.
6	....do	Feb. —, 1882	....do	Do.
36				

(84.) OPHEOSAURUS VENTRALIS Daudin.

Holbrook, N. A. Herp., 1842, ii, 139.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
5137	1	Liberty County, Ga.	.....	Dr. W. L. Jones	Alcoholic.
5138	1	Fort Morgan, Ga....	.....	G. Wurdemann.....	Do.
5038	2	Georgia	.....	Dr. W. L. Jones	Do.
9260	1	Wilmington, N. C...	.....	.....	Do.
6419	1	New Berne, N. C	.....	Capt. Wm. Holden..	Do.
5089	1	Calcasieu Pass, La..	.....	G. Wurdemann.....	Do.
9359	1	St. Johns River, Fla.	.....	G. Brown Goode....	Do.
5135	1	Micanopy, Fla.....	.....	Dr. J. H. Bean.....	Do.
8978	1	Florida	.....	.....	Do.
9358	5	Pensacola, Fla.....	.....	.....	Do.
5322	1	Mississippi	.....	Dr. B. F. Shumard ..	Do.
4985	1	Arkansas.....	.....	.....	Do.
5131	2	Saint Louis, Mo.....	.....	Dr. Geo. Englemann.	Do.
5130	3	Charleston, S. C	.....	.....	Do.
6078	1	Xalapa, Mex.....	.....	.....	Do.
5129	1	Between Arkansas River and Cimmaron River, N. M.	.....	J. Fairie	Do.
6073	1	Fort Scott, Ark.....	.....	Lieutenant Eustis, U. S. A.	Do.
9360	1	Kansas.....	.....	.....	Do.
9357	1	.....	.....	.....	Do.
9687	2	Arlington, Fla.....	May —, 1878	G. Brown Goode....	Do.
10584	1	Clearwater, Fla.....	July 14, 1879	S. T. Walker.....	Do.
10714	1	Baraboo, Wis.....	Oct. —, 1880	J. W. Wood	Do.
11400	4	Fort Macon, N. C....	—— —, 1871	Dr. H. C. Yarrow ...	Do.
12048	3	Mount Carmel, Ill...	Nov. —, 1881	L. M. Turner	Do.
	38				

GENERAL SERIES.

12004	6	Georgiana, Fla	.....	William Wittfield ..	Alcoholic.
10680	1	Clearwater, Fla.....	Oct. —, 1879	S. T. Walker.....	Do.
11845	1	Old Fort Cobb, Tex.	.....	Dr. E. Palmer	Do.
	8				

(85.) BARISSIA OLIVACEA Baird.

Baird, Proc. Acad. Nat. Sci. Phila., 1858, 225.

RESERVE SERIES.

7087	2	Table Lands, Mex ..	.....	Prof. F. Sumichrast	Alcoholic.
3096	2	San Diego, Cal.....	.....	Major W. H. Emory, U. S. A.	Do.
	4				

(86.) GERRHONOTUS NOBILIS Baird & Girard.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 129.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
8763	1	Ralston, Ariz	Nov. —, 1873	Dr. C. G. Newberry	Alcoholic.
3083	2	N. P. R. R. Survey		Governor Stevens	Do.
3076	2	Sonora, Mex		Capt. Minos	Do.
	5				

(87.) GERRHONOTUS PRINCIPIS Baird & Girard.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 175.

RESERVE SERIES.

3103	3	Tahoe Plain, Cal		Dr. J. G. Cooper	

(88.) GERRHONOTUS MULTICARINATUS Baird & Girard.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 175.

RESERVE SERIES.

7909	1	Monterey, Cal		Canfield	Alcoholic.
4131	1	Petaluma, Cal		Dr. F. V. Hayden	Do.
9361	1	San Diego, Cal		J. G. Crosir	Do.
9364	2	Fort Tejon, Cal		J. Xantus	Do.
9362	1	Mexican Bound. Surv			Do.
8339	1	California		L. Stone	Do.
9363	1				Do.
11972	1	La Paz, Cal	—— —, 1882	L. Belding	Do.
3094	1	San Diego, Cal		A. Cassidy	Do.
3104	1	California		Major J. Le Conte	Do.
3099	1	....do		Dr. J. G. Cooper	Do.
3085	1	Presidio, Cal		Lieut. W. P. Trowbridge, U. S. A.	Type.
3095	2	California		Dr. A. L. Heerman	Alcoholic.
	15				

(89.) GERRHONOTUS GRANDIS Baird & Girard.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 176.

RESERVE SERIES.

9057	1	Oregon		U. S. Exp. Ex	Alcoholic.
3107	1	San Francisco, Cal		Dr. S. W. Woodhouse	Do.
9336	1	Feather River, Oreg			Do.
9051	1	N. W. Bound. Sur		Dr. C. B. R. Kennerly	Do.
5134	2	Puget's Sound, Oreg			Do.
3087	8	Petaluma, Cal		E. Samuels	Do.
3092	6	....do		....do	Do.
	20				

(90.) GERRHONOTUS SCINCICAUDUS Skilton.

Skilton, Am. Jour. Sci. Arts, 1849, 202.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
3089	1	Oregon		Dr. A. J. Skilton	Alcoholic.
9335	1	N. W. Boundary		Dr. C. B. R. Kennerly	Do.
8622	3	California	—— —, 1875	Dr. H. C. Yarrow	Do.
8625	4	Santa Barbara, Cal.	July —, 1875	H. W. Henshaw	Do.
8626	2	Santa Cruz Isl'd, Cal.	June —, 1875	do	Do.
10795	1	San Francisco, Cal.	—— —, 1880	Prof. D. S. Jordan	Do.
3081	1	Fort Reading, Cal.		Dr. W. A. Hammond, U. S. A.	Do.
3093	1	San Francisco, Cal.		R. D. Cutts	Do.
	14				

(91.) GERRHONOTUS INFERNALIS Baird & Girard.

Cope, Proc. Acad. Nat. Sci. Phila., 1866, 322.

RESERVE SERIES.

3090	1	Devil's River, Tex.		Dr. C. B. R. Kennerly	Alcoholic.

(92.) HELODERMA SUSPECTUM Cope.

Wiegmann, Isis, 1829, 626.

RESERVE SERIES.

8535	1	Arizona		Capt. Corliss, U. S. A.	Alcoholic.
8167	3	do	—— —, 1871	Expl. W. of 100th M.	Do.
8454	1	Mt. Trumbull, Ariz.	Sept. 19, 1874	G. H. Sommer	Do.
8225	1	Arizona		Capt. Chas. Bendire, U. S. A	Do.
10403	1	Fort McDowell, Tex.			Do.
10686	1	Camp J. A. Rucker, Ariz.	—— —, 1882	Dr. R. T. Burr	Do.
2971	1	Sierra de la Union		A. Schott	Alcoholic.
	9				

GENERAL SERIES.

4279	1	San Pedro River, Arizona.			Alcoholic.

(93.) HOLBROOKIA MACULATA MACULATA (Girard) Cope.

Girard, Stansbury's Rep., Salt Lake, 1852, 342.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2771	1	San Antonio, Tex		Col. J. D. Graham, U. S. A.	Alcoholic type.
8479	1	Santa Fé, N. Mex	June —, 1874	H. W. Henshaw	Alcoholic.
4853	2	Pecos River, Texas		J. K. Townsend	Do.
4954	2	do		Captain Page	Do.
8460	1	Abiquiu, N. Mex	Sept. —, 1874	G. Thompson	Do.
8477	2	San Ildefonso, N. Mex.	Aug. —, 1874	Dr. H. C. Yarrow	Do.
8521	2	Santa Fé, N. Mex	June —, 1874	H. W. Henshaw	Do.
8523	3	New Mexico	Oct. —, 1874	Dr. O. Loew	Do.
8522	4	do	Oct. —, 1874	G. Thompson	Do.
8478	4	Plaza del Alcalde, N. Mex.	Aug. —, 1874	Dr. H. C. Yarrow	Do.
8480	1	Camp Crittenden, Ariz.	Aug. —, 1874	J. H. Rutter	Do.
8525	2	Cave Spring, Ariz	July —, 1874	H. W. Henshaw	Do.
8154	3	Arizona	—— —, 1871	F. Bischoff	Do.
8526	1	Cienegia, Ariz	Aug. 23, 1874	J. H. Rutter	Do.
5025	3	Fort Buchanan, Ariz.		J. Xantus	Do.
8169	1	Arizona	—— —, 1871	Exp. W. 100 M	Do.
9366	14	Fort Kearney to Laramie, Nebr.		Dr. J. G. Cooper	Do.
4867	1	Nebraska		Dr. W. L. Jones	Do.
8524	2	Colorado Springs, Col.	July —, 1874	John Yarrow	Do.
5055	8	Platte Valley		Capt. J. H. Simpson, U. S. A.	Do.
9365	1	Fort Bridger, Wyo		C. Drexler	Do.
8182	1	Utah		Exp. W. 100 M	Do.
6277	2	(?)		(?)	Do.
9367	3	(?)			Do.
8636	1	Utah		Dr. H. C. Yarrow	Do.
8637	2	Dome Cañon, Nev	—— —, 1872	do	Do.
9283	1	Fort Tejon, Cal			Do.
9631	2	Colorado Chiquita, N. Mex.	July 30, 1872	Dr. C. G. Newberry	Do.
9632	1	Apache, Ariz	—— —, 1872	H. W. Henshaw	Do.
2809	1	Santa Rita		Dr. Thos. Webb	Do.
2773	1	Red River Exp		Capt. R. D. Marcy, U. S. A.	Do.
2798	1	Platte River			Do.
2667	5	Sonora		Col. J. D. Graham, U. S. A.	Do.
2662	3	San Pedro, Tex		do	Do.
	83				

(94.) HOLBROOKIA MACULATA PROPINQUA (Girard) Cope.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 126.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4954	2	Pecos River, Texas	.....	Capt. John Pope, U. S. A.	Alcoholic.
2788	1	Ringgold Barracks, Tex.	.....	Dr. Thos. Webb	Do.
5187	1	Fort Stockton, Tex	.....	P. Duffy	Do.
2671	6	Indianola, Tex	.....	Col. J. D. Graham, U. S. A.	Do.
2668	6	Castaneulas, Mex	.....	Lieut. B. Couch, U. S. A.	Do.
2664	2	Alamos de Parros, Mex.	.....	Lieut. B. Couch, U. S. A.	Do.
2817	16	Laredo, Tex	.....	A. Schott	Do.
	34				

(96.) HOLBROOKIA TEXANA Troschel.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 125.

RESERVE SERIES.

2676	1	Western Texas	.....	Dr. S. W. Woodhouse	Type.
4857	2	Pecos River, Texas	.....	J. K. Townsend	Alcoholic.
4914	2	Neuwied, Tex	.....	Prof. L. C. Ervendberg.	Do.
2659	7	San Pedro, Tex	.....	Col. J. D. Graham, U. S. A.	Do.
2666	3	El Paso, Tex	.....	J. H. Clark	Do.
2663	2	Castaneulas, Mex	.....	Lieut. B. Couch, U. S. A.	Do.
2787	1	California	.....	Dr. W. Gambel	Do.
2822	1	Monterey, New Leon	.....	Lieut. B. Couch, U. S. A.	Do.
2672	1	San Antonio, Tex	.....	Dr. C. B. R. Kennerly	Type.
2677	1	Alamos de Parros, Mex.	.....	Lieut. B. Couch, U. S. A.	Do.
2660	2	San Antonio, Tex	.....	Dr. C. B. R. Kennerly	Do.
	23				

98. CALLISAURUS DRACONTOIDES DRACONTOIDES (Blainv.) Cope.

Blainv., Nouv. Ann. de Mus., 1835, iv., 426.

RESERVE SERIES.

12647	32	La Paz, Cal	—— —, 1882	L. Belding	Alcoholic.

(99.) CALLISAURUS DRACONTOIDES VENTRALIS (Blainv.) Cope.

Sitgreave's Report, Zuñi, 1853, 117.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2670	1	West of Rio Grande, Tex.	.....	Dr. S. W. Woodhouse	Alcoholic type.
8155	1	Arizona	—— —, 1871	.....	Alcoholic.
8481	1	Apache, Ariz	July —, 1874	H. W. Henshaw	Do.
8638	1	Mohave Desert, Cal .	—— —, 1875	Dr. O. Loew	Do.
2661	5	Colorado River	.....	Lt. J. C. Ives, U. S. A.	Do.
11419	3	....do.....	.....	....do	Do.
	12				

GENERAL SERIES.

10615	1	(?)	.....	.....	Alcoholic.
10614	1	Arizona	.....	Dr. R. T. Burr.....	Do.
10613	1	....do.....	.....	....do	Do.
10618	1	....do.....	.....	.....	Do.
10612	1	....do.....	.....	Dr. R. T. Burr.....	Do.
10619	1	....do.....	.....	.....	Do.
10617	1	....do.....	.....	.....	Do.
10611	1	....do.....	.....	Dr. R. T. Burr.....	Do.
10616	1	....do.....	.....	.....	Do.
	9				

(101.) UMA NOTATA Baird.

Baird, Proc. Acad. Nat. Sci. Phila., 1858, 253.

RESERVE SERIES.

4124	1	Mohave Desert, Ariz	.....	Dr. A. L. Heerman..	Alcoholic.
6063	1	Fort Buchanan, Ariz	.....	Dr. B. J. D. Irwin, U. S. A.	Do.
	2				

(102) SAUROMALUS ATER Duméril.

Baird, Proc. Acad. Nat. Sci., Phila., 1858, 252.

RESERVE SERIES.

4772	1	Fort Yuma, Cal	.....	Major G. H. Thomas, U. S. A.	Do.
8563	1	Angel Island, Gulf of California.	.....	Dr. T. H. Streets, U. S. N.	Alcoholic.
12264	1	Yampai Valley, Cal.	.....	H. B. Mollhausen...	Do.
12633	1	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
11810	2	Colorado River	.....	Lt. J. C. Ives, U. S. A.	Do.
	6				

(103.) CROTAPHYTUS COLLARIS Say.

Holbrook, N. A. Herp., 1842, ii, 79.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
8468	4	Santa Fé, N. Mex	June 22, 1873	Dr. C. G. Newberry	Alcoholic.
8472	1	do	July —, 1874	H. W. Henshaw	Do.
8474	1	San Ildefonso, N. Mex	Aug. —, 1874	Dr. H. C. Yarrow	Do.
8544	7	Fort Union, N. Mex.	—— —, 1875	Peter Connell	Do.
4757	4	Fort Riley, Kans		H. Brandt	Do.
7814	2	do	—— —, 1864	Dr. B. J. D. Irwin, U. S. A.	Do.
2766	3	Fort Bliss, Tex		Dr. S. W. Crawford, U. S. A.	Do.
5046	1	Fort McKavett, Tex		Capt. Plummer	Do.
2733	1	Western Texas		Dr. S. W. Woodhouse	Do.
5179	2	Fort Stockton, Tex		P. Duffy	Do.
8295	1	Bonito Cañon, Ariz		Gen. W. F. M. Arny	Do.
8467	1	Apache, Ariz	Aug. 27, 1874	Dr. O. Loew	Do.
8463	1	do	Aug. 8, 1874	Dr. C. G. Newberry	Do.
8466	1	do	Aug. —, 1874	Dr. O. Loew	Do.
8465	1	Arizona	Aug. 1, 1874	Dr. C. G. Newberry	Do.
8153	1	do	—— —, 1871	F. Bischoff	Do.
8114	1	Dome Cañon, Nev		Dr. H. C. Yarrow	Do.
4726	3	Chihuahua, Mex		Dr. J. B. Bean	Do.
2768	2	Colorado River		Lt. J. C. Ives, U. S. A.	Do.
5058	1	Southern Utah		J. A. Snyder	Do.
4363	4	Upper Colorado R.		Lt. J. C. Ives, U. S. A.	Do.
9370	3	California		H. B. Mollhausen	Do.
9369	1	Pesqueira Grande, New Leon, Mex.	April —, 1853	Lt. B. Couch, U. S. A.	Do.
2725	1	Los Nogales, Rio Grande.		Dr. C. B. R. Kennerly	Do.
2701	2	Fort Smith, Ark		Lt. A. W. Whipple, U. S. A.	Do.
9368	1	Verdigris River, Ark		Lt. B. Couch, U. S. A.	Do.
2694	1	Western Sonora		Major W. H. Emory, U. S. A.	Do.
2728	1	Sta. Caterina, Mex.		Lt. B. Couch, U. S. A.	Do.
5062	3	Carson's Pass, Utah.		C. McCarthy	Do.
2695	1	Near 38° L		Lieut. E. G. Beckwith, U. S. A.	Do.
8628	1	Camp Mohave, Ariz.	Aug. —, 1875	William Somers	Do.
8629	1	California	—— —, 1875	Dr. H. C. Yarrow	Do.
9549	1	Mohave Desert, Cal.	—— —, 1874	Dr. O. Loew	Do.
2732	1	Chihuahua, Mex		John Potts	Do.
11733	2	Truckee River, Nev.	July —, 1867	R. Ridgway	Do.
11860	3	Camp Whipple, Ariz	—— —, 1865	Dr. E. Coues, U. S. A.	Do.
11889	1	Camp Supply, Ind. Ter.	—— —, 1870	Dr. J. E. Wilcox, U. S. A.	Do.
	67				

GENERAL SERIES.

11733	5	Truckee River, Nev.	July —, 1867	Robert Ridgway	Alcoholic.
11860	2	Camp Whipple, Ariz	—— —, 1865	Dr. E. Coues, U. S. A.	Do.
2684	3	Red River, Ark		Capt. R. B. Marcy, U. S. A.	Do.
2738	2	(?)		Capt. John Pope, U. S. A.	Do.
2688	2	Near 32° L		do	Do.
4771	1	Fort Riley, Kans		H. Brandt	Do.
8471	1	Santa Fé, N. Mex	June —, 1873	H. W. Henshaw	Do.
	16				

(104.) CROTAPHYTUS WISLIZENI Baird & Girard.

Baird & Girard, Stansbury's Report Salt Lake, 1852, 340.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2770	1	Colorado		H. Mollhausen	Alc. type.
2736	1	Dona Ana, Mexico		Capt. L. Sitgreaves, U. S. A.	Alc. *type of fasciatus.*
2722	1	California		Dr. W. Gambel	Alc. *type of gambeli.*
8080	15	Dome Cañon, Nev	—— —, 1872	Dr. H. C. Yarrow	Alcoholic.
8157	1	Arizona	—— —, 1871	Dr. W. A. Hammond U. S. A.	Do.
5064	1	Pecos River, Texas			Do.
4274	1	Laguna, N. Mex		Lt. J. C. Ives, U.S.A.	Do.
8475	1	Santa Fé, N. Mex	July —, 1874	H. W. Henshaw	Do.
4930	1	Southern Utah		Dr. C. Brewer	Do.
2720	3	Near 32° L		Lt. E. G. Beckwith, U. S. A.	Do.
2717	3	California		Lt. R. S. Williamson, U. S. A.	Do.
9371	1				Do.
2698	6	Near 38° L		Lt. E. G. Beckwith, U. S. A.	Do.
9372	2			Col. J. D. Graham, U. S. A.	Do.
2765	3	Salt Lake to Cal.		J. S. Bowman	Do.
9516	4	Pyramid Lake, Nev.	May —, 1877	H. W. Henshaw	Do.
8632	1	Southern California.	—— —, 1875	J. A. Hasson	Do.
9581	2	Near Fort Tejon, Cal	—— —, 1863	W. M. Gabb	Do.
2685	1	Sonora		Col. J. D. Graham, U. S. A.	Do.
11757	1	Fresno, Cal	—— —, 1879	Gustav Eisen	Do.
11771	4	Camp 12, Nev	—— —, 1867	Robert Ridgway	Do.
11730	2	Truckee River, Nev.	July —, 1867	....do	Do.
11833	2	Old Fort Cobb, Tex		Dr. E. Palmer	Do.
11790	5	Fresno, Cal	—— —, 1879	Gustav Eisen	Do.
	63				

GENERAL SERIES.

11790	7	Fresno, Cal	—— —, 1879	Gustav Eisen	Alcoholic.
11811	2	(?)			Do.
11935	1	Camp Mohave, Ariz.	—— —, 1877	Dr. R. E. Lightburne	Do.
11859	1	Camp Whipple, Ariz.	—— —, 1865	Dr. E. Cones, U.S.A.	Do.
11730	3	Truckee River, Nev.	July —, 1867	Robert Ridgway	Do.
11757	2	Fresno, Cal.	—— —, 1879	Gustav Eisen	Do.
11771	3	Camp "12," Nev	—— —, 1867	R. Ridgway	Do.
10621	1	(?)			Do.
10620	1	(?)			Do.
10622	1	(?)			Do.
	22				

(105.) CROTAPHYTUS COPEII Yarrow.

Yarrow, Proc. Nat. Mus., 1882, p. 441.

RESERVE SERIES.

12063	1	La Paz, Cal	—— —, 1882	L. Belding	Alc. type.

(106.) CROTAPHYTUS RETICULATUS Baird.

Baird, Proc. Acad. Nat. Sci. Phila., 1858, 253.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2731	2	Laredo, Tex		Major W. H. Emory, U. S. A.	Alcoholic.
2692	2	Ringgold Barracks, Tex.			Do.
	4				

(107.) DIPSOSAURUS DORSALIS Baird & Girard.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 126.

RESERVE SERIES.

2730	1	Fort Yuma, Cal	— —, 1855	Maj. G. H. Thomas, U. S. A.	Alcoholic.
9374	1	Colorado and Zuñi Expedition.			Do.
9373	3	Colorado River		H. Mollhausen	Do.
2702	1	P. R. R. Survey		Lt. R. S. Williamson, U. S. A.	Do.
9295	1	Sonora			Do.
8635	1	Col. Desert, Ariz	— —, 1875	Lieut. E. Bergland, U. S. A.	Do.
12634	6	La Paz, Cal	— —, 1882	L. Belding	Do.
12653	2	do	— —, 1882	do	Do.
5294	12	Cape St. Lucas, Cal.		J. Xantus	Do.
4178	1	Colorado		A. Schott	Do.
	29				

(108.) UTA THALASSINA Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1863, 104.

RESERVE SERIES.

5302	2	Cape St. Lucas, Cal.		J. Xantus	Alc. type.
12635	6	La Paz, Cal	— —, 1882	L. Belding	Do.
	8				

(109.) UTA GRACIOSA Hallowell.

Hallowell, Proc. Acad. Nat. Sci. Phila., 1854, 92.

RESERVE SERIES.

2978	1	California		Dr. A. L. Hermann	Alcoholic.
2747	8	Colorado		H. B. Mollhausen	Do.
	9				

(110.) UTA NIGRICAUDA Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1864, 176.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
5307	12	Cape St. Lucas, Cal.	.....	John Xantus.....	Alc. type.
5245	1	....do.....	.....	....do.....	Alcoholic.
12614	10	La Paz, Cal.....	Feb. —, 1882	L. Belding.....	Alcoholic.
	23				

(111.) UTA SCHOTTI Baird.

Baird, Proc. Acad. Nat. Sci. Phila., 1858, 253.

RESERVE SERIES.

9571	4	Between Los Nogales and Rio Grande.	—— —, 1885	Dr. C. B. R. Kennerly	Alcoholic.
9573	2	....do.....	—— —, 1855	....do.....	Do.
12671	5	La Paz, Cal.....	—— —, 1882	L. Belding	Do.
	11				

GENERAL SERIES.

9571	6	Between Los Nogales and Rio Grande.	—— —, 1855	Dr. C. B. R. Kennerly	
9573	1	....do.....	—— —, 1855	....do.	
	7				

(112.) UTA ELEGANS Yarrow.

Yarrow, Proc. Nat. Mus., 1882, p. 442.

RESERVE SERIES.

12666	11	La Paz, Cal	Feb. —, 1882	L. Belding	Alcoholic.
12668	4	....do	Feb. —, 1882	....do	Do.
	15				

(113.) UTA ORNATA Baird & Girard.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 126.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2750	2	San Pedro	.....	Col. J. D. Graham, U. S. A.	Alcoholic type.
8156	1	Arizona	—— —, 1871	F. Bischoff	Alcoholic.
8476	3	San Carlos, Ariz	Oct. 7, 1874	H. W. Henshaw	Do.
8527	1	....do	Oct. 17, 1874	J. H. Rutter	Do.
8528	1	Gila River, Ariz	Oct. —, 1874	Dr. O. Loew	Do.
8557	2	Southern Arizona	Oct. —, 1873	H. W. Henshaw	Do.
9376	3	Fort Yuma, Cal	.....	.....	Do.
8181	1	Utah	—— —, 1872	Expl. W. of 100th M.	Do.
8556	1	Col. Chiquita, N. Mex.	July 21, 1873	H. W. Henshaw	Do.
2763	2	Colorado River, Colo	.....	Lieut. J. C. Ives, U. S. A.	Do.
5030	3	Arizona?	.....	Dr. B. J. D. Irwin, U. S. A.	Do.
8641	1	Nevada	—— —, 1872	Dr. H. C. Yarrow	Do.
8667	1	Virgen River to Fort Mohave, Ariz.	Aug. —, 1875	William Somers	Do.
8668	1	Southern California	—— —, 1875	J. A. Hasson	Do.
8665	2	....do	—— —, 1875	....do	Do.
8666	4	Mohave Desert Ariz.	July —, 1875	Dr. O. Loew	Do.
8554	1	Tierra Amarilla, N. Mex.	Sept. 15, 1874	Prof. E. D. Cope	Do.
9479	1	Ralston, Ariz	—— —, 1874	Dr. C. G. Newberry	Do.
12665	7	La Paz, Cal	—— —, 1882	L. Belding	Do.
	38				

(114.) UTA STANSBURIANA Baird & Girard.

Baird & Girard, Stansbury's Report Salt Lake, 1852, 345.

RESERVE SERIES.

2753	6	Salt Lake City, Utah.	.....	Capt. H. Stansbury, U. S. A.	Alc. type.
4957	1	Pecos River, Tex	.....	Capt. John Pope, U. S. A.	Alcoholic.
4857	2	....do	.....	J. K. Townsend	Do.
4855	3	....do	.....	....do	Do.
8529	1	San Ildefonso, N. Mex.	Aug. —, 1874	Cope and Yarrow	Do.
2800	1	Albuquerque, N. M.	.....	Lieut. A. W. Whipple, U. S. A.	Do.
8530	1	Cave Spring, Ariz	July —, 1874	H. W. Henshaw	Do.
8480	1	Camp Crittenden, Ariz.	Aug. —, 1874	J. H. Rutter	Do.
8172	5	Arizona	—— —, 1871	F. Bischoff	Do.
8146	2	Southern Utah	.....	.....	Do.
8149	2	Dome Cañon, Nev	—— —, 1872	Dr. H. C. Yarrow	Do.
9377	2	.....	.....	.....	Do.
8616	10	Santa Barbara, Cal	June —, 1875	H. W. Henshaw	Do.
8642	5	Olamchu Peak, Cal	Sept. —, 1875	....do	Do.
8619	2	Santa Cruz Isl., Cal	June —, 1875	Dr. O. Loew	Do.
9517	2	Fort Tejon, Cal	Aug. —, 1875	J. Brown	Do.
8614	1	Southern California	—— —, 1875	H W. Henshaw	Do.
8639	1	Mohave Desert, Ariz	—— —, 1875	J. A. Hasson	Do.

(114.) UTA STANSBURIANA Baird & Girard—Continued.

Baird & Girard, Stansbury's Report Salt Lake, 1852, 345.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
8618	2	Fillmore, Utah	Sept. —, 1872	Dr. H. C. Yarrow	Alcoholic.
8621	3	Mohave Desert, Ariz.	—— —, 1875	Dr. O. Loew	Do.
4122	3	Colorado River		Lieut. J. C. Ives, U. S. A.	Do.
8569	1	Cerros Island, Lower California.		Dr. T. H. Streets, U. S. N.	Do.
8570	1	Lower California		do	Do.
9484	1	Ralston, Ariz		Dr. C. G. Newberry.	Do.
9489	3	Cottonwood Cañon, Utah.			Do.
8615	1	Virginia City, Nev.	—— —, 1876	Expl. W. of 100th M.	Do.
5306	12	Cape St. Lucas, Cal.		J. Xantus	
12672	7	La Paz, Cal	—— —, 1882	L. Belding	Do.
11973	1	do	—— —, 1882	do	Do.
11976	4	do	—— —, 1882	do	Do.
11982	1	do	—— —, 1882	do	Do.
	88				

GENERAL SERIES.

9573	11	(?)			Alcoholic.

(115.) SCELOPORUS ORNATUS Baird.

Baird, U. S. Mex. Bound. Surv. Repts., 1859, 5.

RESERVE SERIES.

2845	1	Patos Coahuila, Mex		Lieut. B. Couch, U. S. A.	Alcoholic.
9050	1	Redmond's Pass		J. H. Clark	Do.
	2				

(116.) SCELOPORUS JARROVI Cope.

Cope, Zool. Exp. W. of 100th Mer., 1875, v, 569.

RESERVE SERIES.

8495	1	Arizona	—— —, 1873	H. W. Henshaw	Alcoholic.
8494	2	Camp Apache, Ariz.	July —, 1873	do	Do.
10194	1	White River Cañon, Ariz.	—— —, 1879	Dr. R. T. Burr	Do.
11863	2	Camp Rucker, Ariz.		Dr. R. T. Burr	Do.
	6				

(117.) SCELOPORUS POINSETTI Baird & Girard.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 126.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2952	1	Sonora		Col. J. D. Graham, U. S. A.	Alc. type.
8493	1	Camp Apache, Ariz.	—— —, 1874	Dr. C. G. Newberry.	Alcoholic.
8150	1	Arizona	—— —, 1871		Do.
2948	2	San Pedro		Col. J. D. Graham, U. S. A.	Do.
2955	1	Limpia Mountains, Tex.		Major W. H. Emory, U. S. A.	Do.
2946	1			R. H. Kern	Do.
9378	1				Do.
9379	1				Do.
9380	1				Do.
8610	1	Santa Rita Mission.	—— —, 1874	Expl. W. of 100th M.	Do.
2958	1	Ojo Caliente		Dr. Thos. Webb	Do.
2920	1	Los Nogales		Dr. C. B. R. Kennerly	Do.
	13				

(118.) SCELOPORUS TORQUATUS Peale & Green.

Wiegmann, Isis, 1828, 369.

RESERVE SERIES.

4107	1	Sta. Caterina and New Leon, Mex.		Lieut. B. Couch, U. S. A.	Alcoholic.
7122	2	Laredo, Tex		W. Butcher	Do.
2970	1	Sonora		Col. J. D. Graham, U. S. A.	Do.
2925	1	Pesquiera Grande, Mex.		Lieut. B. Couch, U. S. A.	Do.
	5				

(119.) SCELOPORUS COUCHI Baird.

Baird, Proc. Acad. Nat. Sci. Phila., 1858, 254.

RESERVE SERIES.

2739	8	Sta. Caterina, N. Leon.		Lieut. B. Couch, U. S. A.	Alc. type.

(120.) SCELOPORUS MARMORATUS Hallowell.

Hallowell, Proc. Acad. Nat. Sci. Phila., 1852, 178.

RESERVE SERIES.

2885	1	San Diego, Cal.		Lieut. B. Couch, U. S. A.	Alcoholic.
4116	1	Redmond's Ranch, Rio Grande.		Major W. H. Emory, U. S. A.	Do.
	2				

(121.) SCELOPORUS BISERIATUS Hallowell.

Hallowell, U. S. P. R. R. Surv., Williamson's Rept., 1853, x. 6.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
7322	20	Nicaragua		C. Wright	Alcoholic.

(122.) SCELOPORUS UNDULATUS UNDULATUS (Harlan) Cope.

Holbrook, N. A. Herp., 1842, ii, 73.

RESERVE SERIES.

8857	5	Union County, Tenn		J. N. B. Scarborough	Alcoholic.
4221	3	Eutaw, Alabama		Prof. A. Winchell	Do.
4203	2	Mobile, Ala		Pilichody	Do.
5214	1	Northern Alabama		W. M. Stewart	Do.
4838	2	Brookville, Ind		Dr. Hammond (?)	Do.
8858	2	Tangipahoa R., La	Aug. —, 1875	Fred. Mather	Do.
8896	1	Rock Creek, D. C	—— —, 1876	P. L. Jouy	Do.
7818	5	Washington, D. C			Do.
8561	1	Marietta, Ga			Do.
4217	12	Saint Louis, Mo		Dr. Geo. Englemann.	Do.
4214	10	Kemper Co., Miss		Prof. R. Owen	Do.
5066	1	Micanopy, Fla		Dr. J. H. Bean	Do.
4222	2	Tallahassee, Fla		T. Glover	Do.
8774	2	Belleville, Ill	Sept. —, 1874	Dr. A. Reuss	Do.
4216	2	Russellville, Ky		Bebb	Do.
4218	4	Mount Holly, N. J			Do.
4852	4	Fort Riley, Kans		J. K. Townsend	Do.
4875	1	Norfolk, Va		Lieut. B. Couch, U. S. A.	Do.
8291	1	Wilmington, N. C		Dr. A. Reuss	Do.
6453	2	Memphis, Tenn		Dr. John. A. Woodworth.	Do.
4210	3	Charleston, S. C			Do.
2875	20	....do		Dr. S. B. Barker	Do.
2831	20	Delaware Co., Pa		John Evans	Do.
8980	1				Do.
6258	5	Fort Jessup, Ark		Lieut. E. G. Beckwith, U. S. A.	Do.
2847	20	Salt Lake, Utah		....do	Do.
2847	1	Fort Townsend, Oreg		....do	Do.
5082	7	Northern Texas		Kumlien & Bean	Do.
9092	2	Milledgeville, Ga	June 4, 1877		Do.
9090	3	Montgomery, Ala	July 12, 1876		Do.
9381	1			Major J. Le Conte	Do.
9395	1	Liberty County, Ga			Do.
2840	20	Fort Towson, Red R., Ark.		Dr. L. A. Edwards, U. S. A.	
8644	1	Beaver, Utah	Sept. —, 1872	Dr. H. C. Yarrow	Do.
8671	1	California	—— —, 1875	....do	Do.
9644	4	Prince George's Co., Maryland.	May —, 1874	Dr. T. H. Bean	Do.
3839	1	San Francisco, Cal			Do.
	174				

(122.) SCELOPORUS UNDULATUS UNDULATUS Harlan—Continued.

Holbrook, N. A. Herp., 1842, ii, 73.

GENERAL SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
11873	3	Clearwater, Fla	July 14, 1879	S. T. Walker	Alcoholic.
11997	23	Georgiana, Fla		William Whitfield	Do.
11906	2	Nashville, Ga	July 15, 1880	W. J. Taylor	Do.
10593	1	Clearwater, Fla	July 14, 1879	S. T. Walker	Do.
10100	1	Southampton Co., Virginia.	May —, 1879	A. L. Kumlien	Do.
11390	1	Milton, Fla		S. T. Walker	Do.
9578	1	(?)			Do.
9763	2	Prince George's Co., Maryland.	June 1, 1878	William M. Wilson	Do.
9083	45	(?)			Do.
8330	41	Kinston, N. C.		Welsher & Quinn	Do.
8825	1	Union County, Tenn.		J. N. B. Scarborough	Do.
5391	3	Pointsville, N. J		Bishop	Do.
4201	2	Salem, N. C		A. Schott	Do.
8290	1	District of Columbia.	Nov. —, 1874	J. Palmer	Do.
2175	1	(?)			Do.
9510	2	Southern States			Do.
4933	6	Salt Lake, Utah			Do.
8816	3	Union County, Tenn.		J. N. B. Scarborough	Do.
9309	1	South Carolina		Barry	Do.
4213	6	Tyree Springs, Tenn.		Prof. R. Owen	Do.
8963	1	Kinston, N. C		J. W. Milner	Do.
4219	2	Knoxville, Tenn		Prof. J. B. Mitchell	Do.
8806	1	Augusta, Ga		William Phillips	Do.
5106	1	(?)		Prof. J. B. Mitchell	Do.
9082	1	Southfield, Ill		R. Kennicott	Do.
9281	2	(?)			Do.
5136	1	New Madrid, Mo		R. Kennicott	Do.
	155				

(123.) SCELOPORUS UNDULATUS THAYERI (Harlan) Cope.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 127.

RESERVE SERIES.

2872	1	El Dorado Co., Cal		Dr. C. C. Boyle	Alcoholic.
4359	15	Fort Tejon, Cal		J. Xantus	Do.
8608	18	California	—— —, 1875	H. W. Henshaw	Do.
8657	1	Mohave Desert, Cal.	—— —, 1875	Lieut. E. Bergland, U. S. A.	Do.
8658	1	Southern California.	—— —, 1875	J. Brown	Do.
8659	4	Mount Whitney, Cal	—— —, 1875	H. W. Henshaw	Do.
8660	3	Southern California.	—— —, 1876	W. Seckels	Do.
8661	1	Lake Tahoe, Nev	—— —, 1875	Dr. O. Loew	Do.
8662	2	Santa Barbara, Cal	—— —, 1875	Dr. H. C. Yarrow	Do.
8673	1	Los Angeles, Cal	—— —, 1875	W. Seckels	Do.
2887	5	Indianola, Tex		Col. J. D. Graham, U. S. A.	Alc. type.
2866	1	Willamette Valley, Oreg.		Dr. J. Newberry	Alcoholic.
2846	15	Petaluma, Cal		E. Samuels	Do.
2923	1	San Diego, Cal		A. Cassiday	Do.
2928	3	Fort Umpqua, Oreg.		Dr. E. Vollum, U. S. A.	Do.
	72				

(124.) SCELOPORUS UNDULATUS OCCIDENTALIS (Harlan) Yarrow.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 175.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2846	1	Ft. Steilacoom, Wash. Ter		Dr. G. Suckley, U. S. A.	Alcoholic.
2856	1				
2931	2	Oregon		Gov. Stevens	Do.
2851	1	Presidio, Cal		Lieut. W. P. Trowbridge, U. S. A.	Do.
2857	1	California		Dr. Wm. A. Hammond, U. S. A.	Do.
2837	1	Near 38°		Lieut. E. G. Beckwith, U. S. A.	Do.
2903	1	Fort Dallas, Oreg		Gov. Stevens	Do.
2858	1	Cape Flattery, W. Ter.		Lieut. W. P. Trowridge, U. S. A.	Do.
9262	5	California		L. Stone	Do.
	14				

(125.) SCELOPORUS CONSOBRINUS Baird & Girard.

Baird & Girard, Marcy's Red Riv. Rep., 1853, 237.

RESERVE SERIES.

8491	1	Fort Wingate, N. M.	July 15, 1874	A. C. Barry	Alcoholic.
8520	1	San Juan River, N.M.		Lieut. R. Birnie, U. S. A.	Do.
5240	3	Taos, N. Mex		Capt. R. Anderson, U. S. A.	Do.
4109	2	San Pedro, Tex		J. H. Clark	Do.
8161	1	Dome Cañon, Utah		Dr. H. C. Yarrow	Do.
1908	1	Headwaters of Trinity.		Capt. John Pope, U. S. A.	Do.
8163	2	Fairfield, Utah	—— —, 1872	Dr. H. C. Yarrow	Do.
8555	1	Southern Arizona	Oct. —, 1873	H W. Henshaw	Do.
4925	1	Carson's Pass		C. McCarthy	Do.
4821	1	Nebraska			Do.
4865	1	Santa Fé, N. Mex		Howard	Do.
5352	4	Yellowstone		Reynolds & Hayden	Do.
2899	1	St. Luis, N. Mex		Major W. H. Emory, U. S. A.	Do.
8584	1	Apache, Ariz	July —, 1875	Dr. O. Loew	Do.
8606	3	Olamchu Peak, Cal	Sept. —, 1875	H. W. Henshaw	Do.
8607	2	California	—— —, 1875	do	Do.
8609	8	Santa Barbara, Cal	June —, 1875	do	Do.
8643	1	Mohave Desert, Cal.	July —, 1875	Dr. O. Loew	Do.
8664	2	Virginia City, Nev	—— —, 1875	Exp. W. of 100 M.	Do.
9548	1	Fort Wingate, N. M.	—— —, 1874	H. W. Henshaw	Do.
9634	1	Pescao, N. Mex	July —, 1872	do	Do.
12673	5	La Paz, Cal	—— —, 1882	L. Belding	Do.
	44				

(126.) SCELOPORUS CONSOBRINUS GRATIOSUS (Baird & Girard) Cope.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 69.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4978	3	Utah		C. McCarthy	Alcoholic.
2842	1	38° Latitude		Lieut. E. G. Beckwith, U. S. A	Do.
2861	1	(?)		Dr. W. Gambel	Type.
3073	2	Oregon		Exploring Exped'n	Alcoholic.
8490	1	Abiquiu, N. Mex		Dr. O. Loew	Do.
2877	5	Salt Lake, Utah	—— —, 1850	Capt. H. Stansbury, U. S. A	Do.
	13				

(127.) SCELOPORUS SMARAGDINUS Cope.

Cope, Zool. Exped. W. of 100th Mer., 1875, v, 572.

RESERVE SERIES.

8612	4	Nevada and Utah	—— —, 1872	Dr. H. C. Yarrow	Alcoholic type.

(128.) SCELOPORUS TRISTICHUS Cope.

Cope, Zool. Exped. W. of 100th Mer., 1875, v, 571.

RESERVE SERIES.

8613	1	Taos, N. Mex	—— —, 1874	W. S. Shedd	Alcoholic type.

(129.) SCELOPORUS UTIFORMIS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1864, xvi, 177.

RESERVE SERIES.

6117	1	Mexico		J. Xantus	Alcoholic type.

(130.) SCELOPORUS SCALARIS Wiegmann.

Wiegmann, Herp. Mex., 1834, 52.

RESERVE SERIES.

2916	1	Medina, Mex		R. D. Cutts	Alcoholic.

(131.) SCELOPORUS FLORIDANUS Baird.

Baird, Proc. Acad. Nat. Sci. Phila., 1858, 254.

RESERVE SERIES.

2874	1	Pensacola, Fla		Dr. R. W. Jeffrey	Alcoholic.

(132.) SCELOPORUS SPINOSUS Wiegmann.

Wiegmann, Herp. Mex., 1834, 50.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
5063	1	Pecos River, Tex		St. Charles Coll	Alcoholic.
2939	2	Brazos River, Tex		Dr. B. F. Shumard	Do.
2944	1	Texas		G. Wurdemann	Do.
2934	1	Brownsville, Tex		Capt. S. Van Vliet, U. S. A.	Do.
2943	1	Indianola, Tex		Col. J. D. Graham	Do.
2968	1	El Paso, Tex		J. H. Clark	Do.
2902	1	Cadereta, New Leon, Mex.		Lt. B. Couch, U.S.A.	Do.
2954	1			do	Do.
2924	1	California			Do.
2865	1	San Diego, Cal		Taylor	Do.
9398	1	Zuñi and Colo. Exp			Do.
9397	7	Matamoras, Mex		Lt. B. Couch, U.S.A.	Do.
2961	1	Charo Iscendido		do	Do.
2917	1	San Antonio, Tex		Dr. S. W. Woodhouse	Do.
9399	1				Do.
10793	1	San Antonio, Tex	June —, 1879	C. W. Schuermann	Do.
10794	1	do	June —, 1879	do	Do.
2938	1	do		Dr. C. B. Kennedy	Do.
2945	4	Laredo, Mexico		Maj. W. H. Emory, U. S. A.	Do.
2942	1	Coahuila, Mexico		Lt. B. Couch, U.S.A.	Do.
2325	1	Fort Smith, Ark		Dr. B. F. Shumard	Do.
	31				

(133.) SCELOPORUS CLARKI CLARKI (Baird & Girard) Cope.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1852, 127.

RESERVE SERIES.

2940	1	Sonora		Col. J. D. Graham, U. S. A	Alcoholic type.
8483	2	Rock Cañon, Ariz	July —, 1874	J. H. Rutter	Alcoholic.
8487	1	Santa Rita Mountains, Ariz.	Aug. 28, 1874	H. W. Henshaw	Do.
8485	1	Camp Crittenden, Ariz.	Sept. —, 1874	Expl. W. 100 M	Do.
8484	1	do	Aug. —, 1874	J. H. Rutter	Do.
8488	1	South east Arizona	Oct. —, 1873	W. Summers	Do.
8489	1			Expl. W. of 100 M	Do.
9400	2	Colorado River		Dr. C. G. Newberry	Do.
2954	6	Matamoras, Mex		Lieut. B. Couch, U. S. A.	Do.
8663	1	Fort Craig, N. Mex	—— —, 1874	Dr. H. C. Yarrow	Do.
8674	1	Southern California	—— —, 1875	H. W. Henshaw	Do.
9518	1	Nevada	—— —, 1877	do	Do.
8672	1	Mohave Desert, Ariz	—— —, 1875	Dr. O. Loew	Do.
11979	1	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
2965	6	Colorado Basin		A. Schott	Do.
2967	1	Pac. R. R. Exp		Lieut. R. S. Williamson, U. S. A.	Alcoholic.
	28				

(134.) SCELOPORUS CLARKI ZOSTEROMUS (B. & G.) Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1863, 105.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
5298	12	Cape St. Lucas, Cal.	.....	J. Xantus.....	Alcoholic.
12649	21	La Paz, Cal.....	—— —, 1882	L. Belding.....	Do.
12650	1	....do.....	—— —, 1882	....do	Do.
	34				

(135.) SCELOPORUS RUFIDORSUM Yarrow.

Yarrow, Proc. Nat. Mus., 1882, 442.

RESERVE SERIES.

12667	5	La Paz, Cal	—— —, 1882	L. Belding.....	Alcoholic type.
11977	2	....do.....	—— —, 1882	....do	Do.
11981	1	....do.....	—— —, 1882	....do	Do.
	8				

(136.) PHRYNOSOMA MODESTUM Girard.

Stansbury's Rept., Salt Lake, 1852, 365.

RESERVE SERIES.

8511	2	San Ildefonso, N. M.	Aug. —, 1874	Dr. H. C. Yarrow ..	Alcoholic.
8440	1	New Mexico.....	.....	Dr. O. Loew.....	Do.
180	3	Pesquiera Grande, N. Mex.	—— —, 1855	Lieut. B. Couch, U. S. A.	Do.
4854	2	Pecos River, Tex....	.....	J. K. Townsend....	Do.
5176	2	Fort Stockton, Tex..	.....	P. Duffy.....	Do.
8441	1	Camp Apache, Ariz.	July —, 1874	J. H. Rutter.....	Do.
177	1	Alamos de Parros, Coahuila.	—— —, 1853	Lieut. B. Couch, U. S. A.	Do.
168	2	Los Angeles, Cal ...	—— —, 1855	Major W. H. Emory, U. S. A.	Do.
183	1	110 miles N. of Chihuahua, Mexico.	.....	John Potts	Do.
174	4	San Antonio, Tex...	.....	Lieut. A. W. Whipple, U. S. A.	Do.
164	8	....do.....	.....	Col. J. D. Graham, U. S. A.	Do.
9401	1	.....	.....	.....	Do.
4580	1	Little Colorado River.	.....	Lieut. J. C. Ives, U. S. A.	Do.
184	1	Near 32° lat.....	.....	Capt. John Pope, U. S. A.	Do.
186	4	Llano Estacado, Tex	.....	....do	Do.
175	1	Plaenis.....	.....	Dr. Wm. Gambel....	Do.
9402	2	.....	.....	.....	Do.
10797	5	Whewakan Valley, Oreg.	Aug. 13, 1878	H. W. Henshaw....	Do.
	42				

GENERAL SERIES.

10797	1	Whewakan Valley, Oreg.	Aug. 13, 1878	H. W. Henshaw....	Alcoholic.

(137.) PHRYNOSOMA PLATYRHINUM Girard.

Stansbury's Rept., Salt Lake, 1852, 361.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
190	3	Near 38°		Lieut. E. G. Beckwith, U. S. A.	Alcoholic.
9403	1	Saint George, Utah.		C. E. Johnson	Do.
8107	1	Fairfield, Utah		Dr. H. C. Yarrow	Do.
192	1	Headwaters of Humboldt, Utah.		J. S. Bowman	Do.
4980	1	Salt Lake to Carson River, Utah.			Do.
8158	2	Arizona	—— —, 1871		Do.
228	2	Fort Buchanan, Ariz		Lieut. F. T. Bryan, U. S. A.	Do.
9404	1	Exploration Colorado River.		Lieut. J. C. Ives, U. S. A.	Do.
9405	5				Do.
5344	1	Utah		C. McCarthy	Do.
9515	8	Pyramid Lake, Nev.	May —, 1877	H. W. Henshaw	Do.
10832	1	Fort Walla Walla, Wash. Ter.	June —, 1881	Capt. Chas. Bendire, U. S. A.	Do.
10833	1	....do	June —, 1881	....do	Do.
189	1	Salt Lake Valley, Utah.	—— —, 1849	Capt. H. Stansbury, U. S. A.	Do.
11831	1	Old Fort Cobb, Tex.	—— —, 1879	Dr. E. Palmer	Do.
11835	5	....do	—— —, 1879	....do	Do.
11770	10	Nevada	—— —, 1867	Robert Ridgway	Do.
	45				

GENERAL SERIES.

11770	4	Camp "12", Nev.	—— —, 1867	R. Ridgway	Alcoholic.
10782	1	(?)		U. S. F. C.	Do.
10781	1	(?)	—— —, 1878	....do	Do.
10836	1	(?)			Do.
8107	2	Fairfield, Utah	—— —, 1872	Dr. H. C. Yarrow	Do.
	9				

(138.) PHRYNOSOMA MACCALLI Hallowell.

Baird, U. S. Mex. Bound. Surv. Repts. 1859, 9.

RESERVE SERIES.

8650	3	Virginia City, Nev.	July —, 1875	William Seckels	Alcoholic.
9194	3				Do.
9195	1	Mohave Desert, Ariz.	July —, 1875	Dr. O. Loew	Do.
8649	2	....do	July —, 1875	....do	Do.
8651	1	....do	—— —, 1875	....do	Do.
9576	3	Fort Mohave, Ariz		Dr. J. G. Cooper	Do.
11856	2	Fort Whipple, Ariz.			Do.
	15				

GENERAL SERIES.

10785	8	(?)			Alcoholic.
10778	10	Fort Mohave, Ariz	Oct. —, 1875	Dr. R. E. Lightburne.	Do.
	18				

(139.) PHRYNOSOMA REGALE Girard.

Girard, U. S. Mex. Bound. Surv. Repts. 1859, 9.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
8437	2	Camp Lowell, Ariz..	Oct. —, 1874	J. H. Rutter.....	Alcoholic.
161	3	Zuñi, N. M.....	.....	Major W. H. Emory, U. S. A.	Do.
	5				

(140.) PHRYNOSOMA CORNUTUM Harlan.

Girard, Stanbury's Rep. Salt Lake, 1852, 360.

RESERVE SERIES.

117	4	Monterey, New Leon	.....	Lieut. B. Couch, U. S. A.	Alcoholic.
139	10	Near Rock Mary....	.....	Lieut. A. W. Whipple, U. S. A.	Do.
4597	2	Fort Mason, Ark....	.....	Maj. G. H. Thomas, U. S. A.	Do.
4953	3	Pecos River, Tex....	.....	Capt. John Pope, U. S. A.	Do.
5181	1	Fort Stockton, Tex .	.....	P. Duffy.....	Do.
120	1	Saint Joseph's Island, Tex.	.....	G. Wurdemann....	Do.
130	1	Texas.....	.....	Prof. L Agassiz....	Do.
9408	3	La Mesila, Tex.....	—— —, 1872	O. H. Woodworth..	Do.
135	7	Brazos River, Tex..	.....	Dr. B. F. Shumard..	Do.
8438	1	Arizona.....	.....	J. H. Rutter.....	Do.
8439	1	Camp Bowie, Ariz..	Aug. 13, 1874	H. W. Henshaw....	Do.
8509	1	....do.....	Aug. 10, 1874	J. H. Rutter.....	Do.
114	1	Alamos de Parros, Coahuila.	.....	Lieut. B. Couch, U. S. A.	Do.
7814	2	Fort Riley, Kans...	.....	Dr. B. J. D. Irwin, U. S. A.	Do.
4590	4	Fort Bliss, N. Mex..	.....	Dr. S. W. Crawford, U. S. A.	Do.
8510	1	....do.....	.....	Exp. W. of 100th M.	Do.
113	7	Castaneulas, Coahuila.	.....	Lieut. B. Couch, U. U. S. A.	Do.
107	12	Matamoras, Mex....	.....	....do.....	Do.
1428	1	Zuñi and Colorado Rivers.	.....	Dr. L. A. Edwards, U. S. A.	Do.
145	9	Rio Pecos, Tex.....	.....	Capt. John Pope, U. S. A.	Do.
155	4	California.....	.....	Governor Stevens..	Do.
124	2	Las Nogales.....	.....	Major W. H. Emory, U. S. A.	Do.
4580	1	Little Colorado River.	.....	Lieut. J. C. Ives, U. S. A.	Do.
10496	1	Fort Supply, Ind. Ter.	Aug. —, 1880	Dr. A. W. Taylor...	Do.
8576	1	Southeastern Arizona	—— —, 1873	H. W. Henshaw....	*P. planiceps.*
12664	3	La Paz, Cal.....	Feb. —, 1882	L. Belding.....	Alcoholic.
11538	5	Cape St. Lucas, Cal.	.....	John Xantus.....	Do.
	89				

(140.) PHRYNOSOMA CORNUTUM Harlan—Continued.

Girard, Stanbury's Rep. Salt Lake, 1852, 360.

GENERAL SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
11538	5	Cape St. Lucas, Cal.		John Xantus	Alcoholic.
11706	2	(?)		J. Potts	Do.
4579	2	(?)			
10790	4	San Antonio, Tex	June —, 1879	C. W. Schuermann	Do.
10783	1	North. bound. surv		Dr. E. Coues, U.S.A.	Do.
10788	1	Texas		George B. Sennett	Do.
10787	1	do		do	Do.
9406	14	(?)			Do.
9407	6	(?)			Do.
9411	3	(?)			Do.
9410	1	(?)			Do.
9409	1	(?)			Do.
9307	6	Southern Pacific R. R. Survey.		H. B. Mollhausen	Do.
9311	1	Texas			Do.
9412	1	(?)			Do.
9413	1	(?)			Do.
9076	1	(?)			Do.
7123	3	Laredo, Tex			Do.
1085	1	Clark County, Va		Dr. C.B.R. Kennerly	Do.
11141	1	(?)		William F. Roberts	Do.
9075	1	Washington, D. C			Do.
9077	2	Kansas			Do.
5246	1	Northern boundary, Texas.		J. H. Clark	Do.
6436	3	Fort Riley, Kansas			Do.
151	3	(?)			Do.
143	1	Western Texas		Dr. S. W. Woodhouse	Do.
150	3	Fort Towson, Ark		Dr. L. A. Edwards, U. S. A.	Do.
141	2	Fort Chadbourne, Tex.		Dr. E. Swift, U.S.A.	Do.
121	3	Indianola, Tex		J. H. Clark	Do.
115	2	(?)		Lieut. B. Couch, U. S. A.	Do.
117	3	Monterey		do	Do.
110	3	New Braunfels, Tex		Capt. S. Van Vliet, U. S. A.	Do.
109	4	Matamoras, Mex		Lieut. B. Couch, U. S. A.	Do.
108	7	do		do	Do.
	94				

(141.) PHRYNOSOMA ASIO Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1864, 178

RESERVE SERIES.

12618	9	La Paz, Cal	Feb. —, 1882	L. Belding	Alcoholic.

(142.) PHRYNOSOMA HERNANDEZI Girard.

Girard, Herp. U. S. Expl. Ex., 1858, 395.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nat
8567	2	Sonora, Mex	— —, 1874-5	Dr. T. H. Streets, U. S. N.	Al
11977	1	La Paz, Cal	— —, 1882	L. Belding	
198	1	Santa Fé, N. Mex		Grinner	
	4				

(143.) PHRYNOSOMA DOUGLASSI DOUGLASSI (Bell) Cop

Girard, Herp. U. S. Expl. Ex., 1858, 398.

RESERVE SERIES.

8447	1	New Mexico		Dr. O. Loew	Al
8442	1	Colorado	July —, 1873	Dr. C. G. Newberry	
8444	5	Colorado Springs, Colo.	July —, 1874	Dr. H. C. Yarrow	
8514	1	do	July —, 1874	John Yarrow	
4599	1	Crossing Little Colo		Lieut. J. C. Ives, U. S. A.	
8443	2	Pagosa, Colo	Sept. —, 1874	Lieut. A. W. Whipple, U. S. A.	
8452	5	Fort Lowell, Ariz	Aug. —, 1874	H. W. Henshaw	
8513	1	do	Oct. 17, 1874	J. H. Rutter	
8152	1	Arizona	— —, 1871		
8515	1	Taos, N. Mex	Aug. —, 1874	Cope, Yarrow, Shedd	
8449	1	Santa Fé, N. Mex	June —, 1874	H. W. Henshaw	
8446	2	New Mexico	Sept. —, 1876	W. G. Shedd	
8451	2	Abiquiu, N. Mex	Aug. —, 1874	Dr. O. Loew	
8448	12	New Mexico		do	
8445	2	San Ildefonso, N. Mex.	Aug. —, 1874	Dr. H. C. Yarrow	
8450	3	Rio Colorado, N. Mex	Aug. —, 1874	do	
5321	4	Box Elder, Utah		C. McCarthy	
8102	1	Deseret City, Utah		Dr. H. C. Yarrow	
4953	3	Pecos River, Tex		Capt. John Pope, U. S. A.	
9414	1	Fort Benton, Mo		Dr. Geo. Suckley, U. S. A.	
4612	4	Fort Riley, Kans		H. Brandt	
8575	2	Apache, Ariz	Aug. —, 1873	Dr. O. Loew	
9196	3	Fort Union, N. Mex	— —, 1875	R. Connell	
9197	1	Nebraska		H. B. Mollhausen	
9198	6	Yellowstone River	July —, 1873	Dr. F. V. Hayden	
9199	1	Fort Steilacoom, Wash. Ter.			
4604	2	Fort Laramie, Wyo.		Dr. J. R. Warren	
9200	2	(?)		Dr. F. V. Hayden	
5115	8	Kansas		Reynolds and Hayden.	
4585	1	Sand Hills			
9458	1	Upper Fire Hole Basin.		C. Hart Merriam	
9635	3	Santa Fé, N. Mex	June —, 1872	Dr. C. G. Newberry	
9637	3	White Mountains, Arizona.	Aug. —, 1873	do	
8652	2	Beaver, Utah	May —, 1878	Yarrow and Henshaw.	
10191	10	White River Cañon, Arizona.		Dr. R. T. Burr	
11858	6	Fort Whipple, Ariz.	— —, 1865	Dr. E. Coues, U. S. A.	
	105				

143.) PHRYNOSOMA DOUGLASSI DOUGLASSI (Bell) Cope—Continued.

Girard, Herp. U. S. Expl. Ex., 1853, 398.

GENERAL SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
11857	18	Fort Whipple, Ariz.	.....	Dr. E. Coues, U. S. A.	Alcoholic.
11862	1	....do	—— —, 1865	....do	Do.
11849	2	Saint Thomas, Ariz.	.....	Dr. E. Palmer.....	Do.
10191	8	White River Cañon, Ariz.	—— —, 1879	Dr. R. T. Burr.....	Do.
10786	1	Sydney, Nebr.....	Feb. 10, 1876	Lieut. E. Crawford, U. S. A.	Do.
10837	1	Camp Warren, Ariz.	Aug. 10, 1878	H. W. Henshaw....	Do.
5277	1	Kansas.....	.....	Dr. Reynolds	Do.
5272	6	Fort Buchanan, Ariz	.....	Dr. B. J. D. Irwin, U. S. A.	Do.
5455	5	Fort Bridger, Wyo .	.....	.....	Do.
5241	11	(?)	.....	Captain R. Anderson, U. S. A.	Do.
5142	6	Kansas.....	.....	.....	Do.
4927	10	Northern Utah	.....	C. McCarthy.....	Do.
4866	6	Santa Fé, N. Mex...	.....	Howard	Do.
4864	9	....do	.....	....do	Do.
4820	14	Nebraska	.....	.....	Do.
3219	3	Zuñi River, N. Mex.	.....	Dr. S. W. Woodhouse	Do.
9313	2	Bridger's Pass, Wyo.	.....	W. S. Wood	Do.
9312	1	Mexican boundary survey.	.....	Major W. H. Emory, U. S. A.	Do.
9308	3	Bridger's Pass, Wyo.	.....	W. S. Wood	Do.
9263	1	Colorado Springs, Colo.	—— —, 1879	Miss A. Beach	Do.
8184	2	Utah.....	.....	.....	Do.
	111				

(144.) PHRYNOSOMA DOUGLASSI ORNATISSIMUM (Bell) Cope.

Girard, Herp. U. S. Expl. Ex., 1858, 396.

RESERVE SERIES.

4785	2	Santa Fé, N. Mex...	.....	Howard	Alcoholic.
8436	5	Rock Cañon, Ariz...	July —, 1874	J. H. Rutter.....	Do.
8088	5	Cove Creek, Utah...	—— —, 1872	Dr. H. C. Yarrow...	Do.
199	2	Between Austin, Tex., and Cuesta.	.....	Lieut. A. W. Whipple, U. S. A.	Do.
4580	1	Little Colorado River.	.....	Lieut. J. C. Ives, U. S. A.	Do.
4584	3	Upper Colorado Region.	.....	....do	Do.
3222	1	Near 38° latitude...	.....	Lieut. E. G. Beckwith, U. S. A.	Do.
4592	2	Pole Creek	—— —, 1857	Lieut. F. T. Bryan, U. S. A.	Do.
204	1	Zuñi Mountains....	.....	Dr. S. W. Windham	Do.
4596	3	Xalapa, Mex	.....	R. M. D'Oca.....	Do.
	25				

(145.) PHRYNOSOMA DOUGLASSI PYGMÆA (Bell) Yarrow.

Yarrow, Proc. Nat. Mus., 1882, 443.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
11473	2	Des Chutes R., Oreg.	— — —, 1878	H. W. Henshaw	Alcoholic type.
10918	6	Fort Walla Walla, Wash. Ter.	—— —, 1880	Captain Chas. Bendire, U. S. A.	Alcoholic.
11945	3	Oregon	—— —, 1878	H. W. Henshaw	Do.
	11				

(146.) PHRYNOSOMA BLAINVILLEI Gray.

Girard, U. S. Expl. Ex. Herp., 1858, 401.

RESERVE SERIES.

8151	2	Arizona	—— —, 1871		Alcoholic.
7908	1	Monterey, Cal		Canfield	Do.
10779	1	San Diego, Cal	—— —, 1880	Prof. D. S. Jordan	Do.
	4				

(147.) PHRYNOSOMA CORONATUM Blainville.

Blainville, Nouv. Mém. Museum, 1835, iv, 284.

RESERVE SERIES.

155	4	California		Governor Stevens	Alcoholic.
4587	12	Fort Tejon, Cal		J. Xantus	Do.
160	1	El Dorado Co., Cal		Dr. C. C. Boyle	Do.
157	4	San Diego, Cal		Lieut. W. P. Trowbridge, U. S. A.	Do.
8862	1	San Francisco, Cal	Nov. —, 1875	A. W. Chase	Do.
5246	1	Cape St. Lucas, Cal.		J. H. Clark	Do.
129	2	Sonora		Col. J. D. Graham	Do.
8645	1	Mohave Desert, Cal.	—— —, 1875	Dr. O. Loew	Do.
8647	1	do	July —, 1875	do	Do.
8648	3	Santa Barbara, Cal.	July —, 1875	H. W. Henshaw	Do.
9574	1	San Pedro, Cal	July 24, 1863	Dr. J. G. Cooper	Do.
154	1	Bodega, Cal		Dr. J. G. Newberry.	Do.
156	1	Monterey, Cal		Lieut. W. P. Trowbridge, U. S. A.	Do.
	33				

GENERAL SERIES.

11933	1	California			Alcoholic.
11854	1	Santa Barbara, Cal.		Dr. Thos. Webb	Do.
10784	1	(?)			Do.
10780	1	Santa Barbara, Cal.		Prof. D. S. Jordan	Do.
	4				

(148.) CYCLURA HEMILOPHA Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1863, 105.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
5295	4	Cape St. Lucas, Cal.	.....	J. Xantus	Alcoholic type.
12651	1	La Paz, Cal.	Feb. —, 1882	L. Belding	Alcoholic.
12652	1	....do	Feb. —, 1882	....do	Do.
	6				

(149.) CYCLURA TERES Harlan.

Harlan, Jour. Acad. Nat. Sci. Phila., 1825, iv, 246.

RESERVE SERIES.

12655	1	La Paz, Cal.	Feb. —, 1882	L. Belding	Alcoholic.
12656	8	....do	Feb. —, 1882	....do	Do.
	9				

(150.) CYCLURA ACANTHURA Shaw.

Shaw. Gen. Zool., 1802, iii, 216.

RESERVE SERIES.

12654	3	La Paz, Cal.	Feb. —, 1882	L. Belding	Alcoholic.

(151.) ANOLIS PRINCIPALIS Linn.

Holbrook, N. A. Herp., 1842, ii, 67.

RESERVE SERIES.

8305	1	Tocoi, Fla	.....	Prof. F. B. Meek	Alcoholic.
4175	4	Pensacola, Fla	.....	Dr. R. W. Jeffrey ...	Do.
9439	3	Micanopy, Fla	.....	Dr. J. H. Bean	Do.
5160	7	Grand Couteau, La.	.....	St. Charles Coll	Do.
5163	12	Louisiana	.....	C. B. Adams	Do.
8903	2	Lake Monroe, Fla ..	.....	Prof. S. F. Baird	Do.
5126	1	Eutaw, Ala	.....	Prof. A. Winchell ..	Do.
5124	6	New Orleans to Galveston, Tex.	.....	C. B. Adams	Do.
8985	1	.....	.....	.....	Do.
5088	1	North Carolina	.....	C. B. Adams	Do.
5147	7	Cat Island, Wis.	.....	G. Wurdemann	Do.
9440	4	Wisconsin	.....	.....	Do.
5123	6	Charleston, S. C	.....	.....	Do.
5166	6	Kemper Co., Miss...	.....	.....	Do.
5218	1	Alabama	.....	W. M. Stewart	Do.
4726	3	Micanopy, Fla	.....	Dr. J. H. Bean	Do.
9965	2	Little Sarasota Bay, Florida.	—— —, 1875	Prof. F. B. Meek...	Do.
11905	1	Nashville, Ga	July 28, 1880	W. I. Taylor	Do.
2988	1	Victoria, Tex	.....	Major W. H. Emory, U. S. A.	Do.
11707	1	Camp Yuma, Cal ...	.....	R. O. Abbott	Do.
10601	1	Middle Sound, N. C.	April 18, 1880	R. E. Earl	Do.
9265	1	Round Lake, Ala	July 14, 1876	A. L. Kumlien	Do.
	72				

(151.) ANOLIS PRINCIPALIS Linn—Continued.

Holbrook, N. A. Herp., 1842, ii, 67.

GENERAL SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4175	4	Pensacola, Fla		Dr. R. W. Jeffrey	Alcoholic.
2987	3	Anderson, S. C		Mrs. M. E. Daniel	Do.
2983	1	New Orleans, La		N. O. Academy	Do.
11996	24	Georgiana, Fla		William Wittfield	Do.
10594	1	Clearwater, Fla	July 14, 1879	S. T. Walker	Do.
10595	1	do	July 14, 1879	do	Do.
10596	1	do	July 14, 1879	do	Do.
10725	1	(?)			Do.
10724	1	(?)			Do.
11391	1	Milton, Fla	May 23, 1881	S. T. Walker	Do.
10876	1	Oakley, S. C			Do.
9490	1	(?)			Do.
5144	1	Mississippi		C. B. Adams	Do.
9280	1	(?)			Do.
9291	1	(?)			Do.
8335	2	Kingston, N. C		H. W. Welsher	Do.
5163	8	Louisiana		C. B. Adams	Do.
5158	3	Summerville, N. C		J. C. McNair	Do.
5161	1	New Orleans, La		G. Wurdemann	Do.
	57				

(152.) ANOLIS COOPERI Baird.

Baird, Proc. Acad. Nat. Sci. Phila., 1858, 254.

RESERVE SERIES.

6002	1	Cape Punta, Fla			Alcoholic.

(153.) COLEONYX VARIEGATUS Baird.

Baird, U. S. Mex. Bound. Surv. Repts., 1859, 12.

RESERVE SERIES.

3211	1	Live Oak Creek, Tex.		Maj. W. H. Emory, U. S. A.	Alc. type.
3213	2	Fort Yuma, Cal		Major G. H. Thomas, U. S. A.	Alcoholic.
	3				

(154.) SPHÆRODACTYLUS NOTATUS Baird.

Baird, U. S. Mex. Bound. Surv. Repts., 1859, 12.

RESERVE SERIES.

3216	1	Florida			Alcoholic.
5173	1	Cuba		C. Wright	Do.
	2				

(156). PHYLLODACTYLUS XANTI Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1863, 102

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
12646	1	La Paz, Cal	Feb. —, 1882	L. Belding	Alcoholic.

(157.) DIPLODACTYLUS UNCTUS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1863, 102.

RESERVE SERIES.

5304	1	Cape St. Lucas, Cal.		John Xantus	Type; alcoholic.
8571	3	Triunfo, Lower Cal.	——-. 1874–5	Dr. T. H. Streets, U. S. N.	Alcoholic.
12612	1	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
	5				

(159.) CROTALUS PYRRHUS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1866, 308.

RESERVE SERIES.

6606	1	Fort Whipple, Ariz.		Dr. E. Coues, U.S.A.	Type; alcoholic.
8562	1	Angel Island Bay, Cal.	——-, 1874–5	Dr. T. H. Streets, U. S. N.	Alcoholic.
8669	1	Mohave Desert, Ariz.	July —, 1875	Dr. O. Loew	Do.
	3				

(160.) CROTALUS MITCHELLI Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1861, 293.

RESERVE SERIES.

12625	1	La Paz, Cal	Feb. —, 1882	L. Belding	Alcoholic.

(161.) CROTALUS CERASTES Hallowell.

Baird, U. S. Mex. Bound. Surv. Repts., 1859, ii, 14.

RESERVE SERIES.

482	1	Colorado River, Col.		A. Schott	Alcoholic.
5022	1	Fort Buchanan, N. Mex.		Dr. B. J. D. Irwin, U. S. A.	Do.
8923	1	Southern Utah		Dr. H. C. Yarrow	Do.
9116	1	Cottonwood Cañon, Nev.		John Kohler	Do.
	4				

(162.) CROTALUS TIGRIS Kennicott.

Kennicott, U. S. Mex. Bound. Surv. Repts., 1859, ii, 14.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
471	1	Sierra Verde, N. Mex	.....	A. Schott	Alcoholic.
472	1	....do	.....	....do	Do.
473	1	....do	.....	....do	Do.
5271	1	Ft. Buchanan, Ariz.	.....	Dr. B. J. D. Irwin, U. S. A.	Do.
	4				

(163.) CROTALUS ENYO Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1861, 293.

RESERVE SERIES.

5291	3	Cape St. Lucas, Cal.	.....	J. Xantus	Alcoholic.
12623	1	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
	4				

(164.) CROTALUS HORRIDUS Linn.

Holbrook, N. A. Herp., 1842, iii, 9.

RESERVE SERIES.

8372	1	Wilmington, N. C ..	.....	Dr. A. Reuss	Alcoholic.
248	1	Saint Simon's Island, Ga.	.....	J. P. Fox	Do.
4621	1	Kansas	—— —, 1858	Capt. J. H. Simpson, U. S. A.	Do.
4394	1	Arkansas	.....	Colonel Kearney ...	Do.
249	1	Iowa	.....	B. F. Odell	Do.
276	1	Brazos River, Tex ..	.....	Dr. B. F. Shumard ..	Do.
1292	1	Carlisle, Pa	.....	Prof. S. F. Baird	Do.
244	1	West Virginia	.....	Dr. P. R. Hoy	Do.
9320	1	Wilmington, N. C ..	.....	.....	Do.
9973	1	Katonah, N. Y	Aug. 26, 1878	J. D. Miller	Alc. cast.
1299	1	Prairie Mer Rouge, La.	.....	J. Fairie	Alcoholic.
	11				

GENERAL SERIES.

10864	1	(?)	(?)	.....	Alcoholic.

(165.) CROTALUS ADAMANTEUS ADAMANTEUS (Beauvois) Cope.

Baird and Girard, Cat. N. A. Serp., 1853, 3.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
250	1	Charleston, S. C		Dr. S. B. Barker	Alcoholic.
270	1	Saint Augustine, Fla		J. C. H. Snell	Do.
252	1	Jackson, N. C		Fitzgerald	Do.
4293	1	Arkansas			Do.
10550	3	Gainesville, Fla	Apr. 18, 1881	James Bell	Do.
4293	1	Arkansas		Colonel Kearney	Do.
----	1	Charleston, S. C		Dr. G. E. Manigault	Skeleton.
----	1	Florida (?)			Skin.
9625	2	Sanford, Fla	—— —, 1879	D. S. Way	Casts.
	12				

GENERAL SERIES.

10067	1	Gulf Hammock, Fla.	Apr. —, 1879	W. J. Cameron	Alcoholic.
10821	1	Gainesville, Fla	Mar. —, 1881	James Bell	Do.
10820	1	do	do	do	Do.
10818	1	do			Do.
10542	1	do			Do.
10825	1	do			Do.
10826	1	do			Do.
12082	1	(?)			Do.
	8				

(166.) CROTALUS ADAMANTEUS ATROX (Beauvois) Cope.

Baird and Girard, Cat. N. A. Serp., 1853, 5.

RESERVE SERIES.

7760	1	Indianola, Tex		Col. J. D. Graham, U. S. A.	Alcoholic.
7761	1	do		do	Do.
255	1	do		do	Do.
4224	1	San Antonio, Tex		Dr. S. W. Woodhouse	Do.
1801	1	Eagle Pass, N. Mex			Do.
273	1	San Bois, Choctaw Nation.		Lieut. A. W. Whipple. U. S. A.	Do.
263	1	Santa Cruz		Lieut. B. Couch, U. S. A.	Do.
4713	1	Fort Buchanan, Ariz.		Dr. B. J. D. Irwin, U. S. A.	Do.
4225	1	Rocky Dell Creek		Lieut. A. W. Whipple, U. S. A.	Do.
476	1	Fort Yuma, Cal		R. O. Abbott	Do,
5290	1	Cape St. Lucas, Cal.		J. Xantus	Do.
470	1	Gila and Colorado Bottom.		A. Schott	Do.
8564	1	Los Carnados, Cal	——-, 1874-5	Dr. T. H. Streets, U. S. N.	Do.
8856	1	San Francisco, Cal.	Nov. —, 1875	A. W. Chase	Do.
8908	1				Do.
9322	2		—— —, 1874		Do.
9208	1	Brookhaven, Miss		T. J. H. Keenan	Do.
474	1	Tabac, Sonora		Dr. Thos. Webb	Do.
8399	1	Fort Wingate, N. M.	July 26, 1873	H. W. Henshaw	Do.
12545	4	La Paz, Cal	—— —, 1882	L. Belding	Do.
	24				

(166.) CROTALUS ADAMANTEUS ATROX (Beauvois) Cope—Continued.

Baird and Girard, Cat. N. A. Serp., 1853, 5.

GENERAL SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
269	1	Brazos River, Texas	.....	Dr. B. F. Shumard ..	Alcoholic.
7212	1	Between San Pedro and Comanche Springs.	.....	.....	Do.
5184	1	Fort Stockton, Tex .	.....	P. Duffy	Do.
7765	1	P. R. R. survey, 32°.	.....	Capt. John Pope, U. S. A.	Do.
4226	1	Texas	.....	Dr. C. B. R. Kennerly	Do.
	5				

(167.) CROTALUS ADAMANTEUS SCUTULATUS (Beauvois) Cope.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1861, 207.

RESERVE SERIES.

5021	1	Fort Buchanan, Ariz.	.....	Dr. B. J. D. Irwin, U. S. A.	Alcoholic
8669	2	Mohave Desert, Ariz.	.....	Dr. O. Loew	Do.
285	1	Gila River Bottom..	.....	A. Schott	Do.
	4				

(168.) CROTALUS LUCIFER Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 6.

RESERVE SERIES.

7762	1	Oregon	.....	.....	Alc. type.
4234	1	Fort Umpqua, Oreg.	.....	Dr. E. P. Vollum, U. S. A.	Alcoholic
8397	1	White Mts., Ariz....	.....	H. W. Henshaw	Do
5021	1	Ft. Buchanan, Ariz .	.....	Dr. B. J. D. Irwin, U. S. A.	Do.
370	1	California	.....	Dr. C. B. R. Kennerly	Do.
371	1	....do	.....	....do	Do.
373	2	San Francisco, Cal..	.....	R. D. Cutts	Do.
4254	2	Fort Tejon, Cal	.....	J. Xantus	Do.
9959	1	Sta. Catalina Island, Cal.	—— —, 1876	P. Schumacher.....	Do.
10774	1	Near Camp Harney, Oreg.	.....	Capt. Chas. Bendire, U. S. A.	Do.
10813	1	Columbia R., Oreg..	Sept. 19, 1878	H. W. Henshaw	Do.
10608	1	Santa Barbara, Cal.	July —, 1875	....do	Do.
10914	1	Fort Walla Walla, Wash.	June —, 1881	Capt. Chas. Bendire, U. S. A.	Do.
376	1	Blue Mts., Oreg	.....	Dr. Geo. Suckley, U. S. A.	Do.
	16				

(169.) CROTALUS POLYSTICTUS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1865, 191.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
11363	1	Mexico	June —, 1880	Professor A. Dugés.	Alcoholic.

(170.) CROTALUS CONFLUENTUS Say.

Baird & Girard, Cat. N. A. Serp., 1853, 8.

RESERVE SERIES.

4617	1	Steptoe Valley, Utah	July 19, 1851	Captain J. H. Simpson, U. S. A.	Alcoholic.
4251	1	San Francisco, Cal.		H. B. Mollhausen	Do.
8396	1	Rush Lake, Ariz	Aug. —, 1873	H. W. Henshaw	Do.
8145	1	Camp Grant, Ariz	—— —, 1872	Dr. E. Palmer	Do.
8395	1	Apache, Ariz	Aug. —, 1873	Dr. C. G. Newberry	Do.
4227	1	Red River, Ark		Capt. R. B. Marcy, U. S. A.	Alc. type.
8128	1	Snake Valley, Nev	—— —, 1872	Dr. H. C. Yarrow	Alcoholic.
8399	1	Ft. Wingate, N. Mex.	July 26, 1873	H. W. Henshaw	Do.
4230	1	Pole Creek, Nebr		Dr. W. A. Hammond, U. S. A.	Do.
264	1	Oregon		Dr. C. B. R. Kennerly	Do.
4228	1	San Antonio, Tex		Col. J. D. Graham, U. S. A.	Do.
8129	1	Provo, Utah	—— —, 1872	Dr. H. C. Yarrow	Do.
7841	1	Utah		A. Clough	Do.
292	1	Republican River			Do.
260	1	Rio San Pedro, Tex.		Dr. C. B. R. Kennerly	Do.
4231	1	Yellowstone		Dr. F. V. Hayden	Do.
4229	1	Cache la poudre Riv.			Do.
282	1	Milk River, Mont		Governor Stevens	Do.
283	1	Fort Lookout		Dr. F. V. Hayden	Do.
4658	1	Utah	Aug. 9, 1859		Do.
8143	1	Rush Lake, Utah	—— —, 1872	Dr. H. C. Yarrow	Do.
9319	1	Montana		Dr. E. Coues, U. S. A.	Do.
9318	1	Camp Thorne	July —, 1878	Prof. J. A. Allen	Do.
8598	1	Kern River, Cal	Sept. —, 1875	H. W. Henshaw	Do.
9519	1	Pyramid Lake, Nev.	May 27, 1877	do	Do.
9958	1	Sydney, Nebr	Feb. 10, 1876	Lt. E. Crawford, U. S. A.	Do.
11729	1	Camp "12," Nevada	July —, 1867	Robert Ridgway	Do.
284	1	Fort Union, N. Mex.			Do.
9094	1	(?)			Do.
8753	1	Arizona	—— —, 1873	H. W. Henshaw	Do.
	30				

GENERAL SERIES.

11565	1	Truckee River, Nev.	July —, 1867	Robert Ridgway	Alcoholic.
8755	1	San Mateo, Ariz	Oct. —, 1875	H. W. Henshaw	Do.
4232	4	Near 32° latitude		Capt. John Pope, U. S. A.	Do.
9318	1	Yellowstone River	July —, 1873	Prof. J. A. Allen	Do.
4618	1	Fort Kearney		C. McCarthy	Do.
1293	1	Wagon road to Bridger's Pass, Wyo.		W. S. Wood	Do.
4962	1	Pecos River, Texas		Capt. John Pope, U. S. A.	Do.
	10				

(171.) CROTALUS MOLOSSUS Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853. 10.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
8398	1	Southern Arizona	Oct. —, 1873	H. W. Henshaw	Alcoholic.
485	1	Sonora, Mex		Col. J. D. Graham, U. S. A.	Do.
486	1	Pecos River, Texas		Dr. A. L. Heerman	Do.
	3				

(173.) CAUDISONA MILIARIA Linn.

Baird & Girard, Cat. N. A. Serp., 1853, 11.

RESERVE SERIES.

4283	2	Arkansas		C. Drexler	Alcoholic.
7214	1	Pensacola, Fla			Do.
494	1	Headwaters Colorado.		Capt. John Pope, U. S. A.	Do.
5460	3	Grand Couteau, La		St. Charles Coll	Do.
504	1	Monticello, Miss		Miss H. Tunnison	Do.
500	4	Charleston, S. C		E. B. Andrews	Do.
497	1	Sans-bois Creek, N. Mex.		Jeffers	Do.
6067	4	Sonora, Mex		Dr. Jarvis, U. S. A.	Do.
8784	1	Pensacola, Fla	July 17, 1876	F. V. Stevenson	Do.
8932	1	Wilmington, N. C			Do.
9703	1	Arlington, Fla	—— —, 1878	G. Brown Goode	Do.
9705	1	do	—— —, 1878	do	Do.
10604	1	Nashville, Ga	Oct. 3, 1880	W. J. Taylor	Do.
10708	1	do	Aug. 10, 1880	do	Do.
9706	1	Arlington, Fla	—— —, 1878	G. Brown Goode	Do.
10736	1	Clearwater, Fla	—— —, 1879	S. J. Walker	Do.
	25				

GENERAL SERIES.

10745	1	Clearwater, Fla	Aug. 26, 1879	S. J. Walker	Alcoholic.
10735	1	do	July 14, 1879	do	Do.
10623	1	(?)			Do.
9478	1	(?)	Sept. 15, 1862	Dr. Jarvis, U. S. A	Do.
	4				

(174.) CAUDISONA EDWARDSI Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 15.

RESERVE SERIES.

509	1	Mexico		Dr. L. A. Edwards, U. S. A.	Alc. type.
511	1	Brownsville, Tex		Col. J. D. Graham, U. S. A.	Alcoholic.
5177	2	Stockton, Tex		J. Fairie	Do.
506	1	Sonora, Mex		Col. J. D. Graham, U. S. A.	Do.
8409	2	Southern Arizona	—— —, 1874	H. W. Henshaw	Do.
	7				

(175.) CAUDISONA TERGEMINA Say.

Baird & Girard, Cat. N. A. Serp., 1853, 14.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
435	1	Savannah, Ga			Alcoholic.
517	1	Del. Co., Iowa		B. F. Odell	Do.
514	1	Nebraska		M. Warner	Do.
5362	1	New Buffalo, Mich			Do.
546	1	Columbus, Ohio		Prof. L. Lesquereux	Do.
543	3	Warren, Ohio			Do.
545	1	Trumbull Co. Ohio		Dr. J. P. Kirtland	Do.
7772	1	Indiana			Do.
4656	1	Utah		Capt. J. H. Simpson, U. S. A.	Do.
525	2	Racine, Wis		Dr. P. R. Hoy	Do.
522	1	Verdigris River		J. H. Clark	Do.
	14				

(176.) ANCISTRODON PISCIVORUS PISCIVORUS (Lacépède) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 19.

RESERVE SERIES.

6248	1	New Berne, N. C			Alcoholic.
833	2	New Orleans, La		Acad. Nat. Sci	Do.
809	1	Charleston, S. C			
817	1	Saint Simon's Island, Ga.		J. P. Postell	Do.
819	1	Fort Smith, Ark		Dr. B. F. Shumard	Do.
824	1	Union County, Ill		R. Kennicott	Do.
825	1	....do	....do	....do	Do.
9006	1	Montgomery, Ala	May —, 1877	Kumlien and Bean	Do.
10551	1	Gainesville, Fla	Apr. 18, 1881	James Bell	Do.
10441	1	....do	May —, 1880	....do	Do.
10442	1	....do	May —, 1880	....do	Do.
808	1	Prairie Mer Rouge, La.		J. Fairie	Do.
9097	1	Wilmington, N. C			Do.
10679	1	Clearwater, Fla	—— —, 1879	S. T. Walker	Do.
	15				

GENERAL SERIES.

10734	1	Clearwater, Fla	July 14, 1879	S. T. Walker	Alcoholic.
10702	1	Gainesville, Fla		James Bell	Do.
10488	1	....do	July —, 1880	....do	Do.
	3				

(177.) ANCISTRODON PISCIVORUS PUGNAX (Lacépède) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 20.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4262	2	Indianola, Tex		Col. J. D. Graham, U. S. A.	Alcoholic.
822	1	Near 32° lat		Capt. John Pope, U. S. A.	Do.
4263	1	Eagle Pass, Tex		A. Schott	Do.
	4				

(178.) ANCISTRODON CONTORTRIX Linn.

Baird & Girard, Cat. N. A. Serp., 1853, 17.

RESERVE SERIES.

808	1	Prairie Mer Rouge, La.		J. Fairie	Alc. type.
559	1	do		J. Fairie	Alcoholic.
569	1	Red River, Arkansas		Dr. L. A. Edwards, U. S. A.	Do.
7811	1	Fort Riley, Kans		Dr. B. J. D. Irwin, U. S. A.	Do.
570	1	Big Blue River, Kans		W. S. Wood	Do.
5463	1	Grand Coteau, La		St. Charles Coll	Do.
562	1	Mississippi		Dr. J. G. Cooper	Do.
566	1	Carlisle, Pa		Prof. S. F. Baird	Do.
571	1	Sabinal		Col. J. D. Graham, U. S. A.	Do.
575	1	Madison, Va		Dr. C. Girard	Do.
8047	1	Washington, D. C		Dr. E. Coues, U. S. A.	Do.
574	1	Charleston, S. C		Dr. C. Girard	Do.
563	1	do			Do.
8788	1	Augusta, Ga		William Phillips	Do.
8365	1	Ferry Landing, Va	May 29, 1875	H. W. Welsher	Do.
9000	1	Wilmington, N. C			Do.
9957	1	Arkansas	—— —, 1875	Capt. J. P. McCown, U. S. A.	Do.
9210	1	Charleston, S. C		St. Charles Coll	Do.
10361	1	Leesburg, Va	Sept. —, 1879	C. S. Carter	Do.
10075	1	Florida	—— —, 1879	J. W. Milner	Do.
	20				

GENERAL SERIES.

9685	1	Virginia	May 21, 1878	F. H. Cushing	Alcoholic.
10361	1	Leesburg, Va	Sept. —, 1879	C. S. Carter	Do.
	2				

(180.) ELAPS FULVIUS FULVIUS (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 21.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4804	1	New Orleans, La		Acad. of Sci., N. O.	Alcoholic.
4391	1	Arkansas		Colonel Kearney	Do.
6081	1	Xalapa, Mex		R. M. D'Oca	Do.
1120	1	Charleston, S. C		Dr. C. Girard	Do.
6045	1	Barbadoes		Prof. Theo. N. Gill	Do.
1139	1	Liberty County, Ga.		Dr. W. L. Jones	Do.
1130	1	Eutaw, Ala		Prof. A. Winchell	Do.
1142	1	Somerville, S. C		J. C. McNair	Do.
4716	1	Micanopy, Fla		Dr. J. H. Bean	Do.
7776	1	Saint Joseph's Island			Do.
8230	1	Saint John's River, (Orange Bluffs), Fla.		L. W. Ledyard	Do.
9933	1	Arlington, Fla	—— —, 1878	G. Brown Goode	Do.
10606	1	Nashville, Ga	Sept. 6, 1880	William J. Taylor	Do.
8813	1	South Carolina		Dr. G. A. Moran	Do.
10674	1	Arlington, Fla	—— —, 1879	F. C. Goode	Do.
10673	1	do	—— —, 1879	do	Do.
11990	1	Georgiana, Fla		William Wittfield	Do.
1135	1	Texas		Colonel Jewett	Do.
10443	1	Gainesville, Fla	—— —, 1880	James Bell	Do.
	19				

GENERAL SERIES.

11990	1	Georgiana, Fla		William Wittfield	Alcoholic.
10692	1	Gainesville, Fla	—— —, 1880	James Bell	Do.
	2				

(181.) ELAPS FULVIUS TENER (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 22.

RESERVE SERIES.

1119	1	San Pedro to Rio Grande, Mex.			Alcoholic.
1125	2	San Felipe		Major W. H. Emory, U. S. A.	Do.
1135	1	Texas		Colonel Jewett	Do.
1137	4	Rio Pecos, Tex		Capt. John Pope, U. S. A.	Do.
8783	1	Pensacola, Fla	Aug. —, 1874	F. Stevenson, U.S.N.	Do.
8574	1	Indianola, Tex	Sept. —, 1874	Capt. Wm. Holden	Do.
	10				

(182.) ELAPS EURYXANTHUS Kennicott.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1860, 337.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1122	1	Sonora, Mex	.....	Dr. Thos. Webb	Alcohol[illegible]
1131	1	Arizona	.....	A. Schott	Do.
8566	1	Tiburon Island, L. Cal.	Aug. 22, 1876	Dr. T. H. Streets, U. S. N.	Do.
8949	1	Fort Whipple, Ariz	.....	Dr. E. Palmer	Do.
1123	1	Rio Grande	.....	General Churchill, U. S. A.	Do.
	5				

(183.) ELAPS DISTANS Kennicott.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1860, 338.

RESERVE SERIES.

8369	1	Volusia, Fla	.....	Prof. F. B. Meek	Alcoh[illegible]
8850	1	Chihuahua, Mex	.....	William Grant	Do.
	2				

(184.) ELAPS TRISTIS Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 23.

RESERVE SERIES.

1124	1	Kemper Co., Miss	.....	D. C. Lloyd	Alcoholi[illegible] type.
1123	1	Rio Grande	.....	General Churchill, U. S. A.	Alcoholic.
8870	1	Hemstead, Tex	Dec. 22, 1876	Kumlien and Bean.	Do.
	3				

(185.) CARPHOPHIOPS HELENÆ Kennicott.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1859, 100.

RESERVE SERIES.

2183	2	Southern Illinois	.....	R. Kennicott	Alcoholic.
12046	7	Mount Carmel, Ill	.....	Lucien M. Turner	Do.
	9				

(186.) CARPHOPHIOPS AMŒNUS Say.

Baird & Girard, Cat. N. A. Serp., 1853, 129.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	Foxburg, Pa		Prof. S. F. Baird	Alcoholic.
1	Beesley's Point, N. J.		do	Do.
1	Anderson, S. C		Mrs. M. E. Daniel	Do.
2	Clark County, Va			Do.
1	Weathersfield, Conn.		C. Wright	Do.
2	Mississippi		Dr. B. F. Shumard	Do.
2	Southern Illinois		R. Kennicott	Do.
2	Jackson Co., N. C		Fitzgerald	Do.
1	do		do	Do.
1	Washington, D. C		Dr. E. Coues, U. S. A.	Do.
1	Georgia		Dr. J. Jones	Do.
3	Union County, Tenn.		J. N. B. Scarborough	Do.
1	Morton, Ohio		A. H. Little	Do.
1	Augusta, Ga		William Phillips	Do.
1	Kinston, N. C		Mason	Do.
1	Washington, D. C	May —, 1880	W. W. Rhees	Do.
1	Wheatland, Ind	April —, 1881	Robert Ridgway	Do.
2	Mount Carmel, Ill	Nov. —, 1881	Lucien M. Turner	Do.
1	Arlington, Va		William Palmer	Do.
1	Salem Creek, N. C	—— —, 1881	Dr. J. A. Kite, U. S. N.	Do.
27				

(187.) CARPHOPHIOPS VERMIS Kennicott.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1859, 99.

RESERVE SERIES.

1	Fort Scott, Kans		Lieut. Eustis, U. S. A.	Alcoholic.
1	Prairie Mer Rouge, La.			Do.
1	Saint Louis, Mo		St. Louis Academy	Do.
3				

(188.) VIRGINIA VALERIÆ Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 127.

RESERVE SERIES.

1	Cook County, Ill		R. Kennicott	Alcoholic.
1	Southern Illinois		do	Do.
1	Tyree Springs, Tenn.		Professor R. Owen	Do.
1	Anderson, S. C		Miss C. Paine	Do.
1	Kent County, Md		Miss V. Blaney	Do.
5				

(189.) VIRGINIA ELEGANS Kennicott.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1859, 99.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of citmen.
2055	1	Fort Towson, Red River, Arkansas.	.....	Dr. L. A. Edwards, U. S. A.	Alcoholic.
2056	1	....do	.....	....do	Do.
12023	1	Mount Carmel, Ill...	Nov. —, 1881	Lucien M. Turner ..	Do.
	3				

(190.) HALDEA STRIATULA Linn.

Baird & Girard, Cat. N. A. Serp., 1853, 122.

RESERVE SERIES.

1879	1	Charleston, S. C	.....	Dr. S. B. Barker	Alc. type.
4751	2	Upshur County, Tex.	.....	J. N. Glasco	Alcoholic.
5564	6	Grand Couteau, La..	.....	St. Charles Coll. ...	Do.
7302	1	Somerville, N. C	.....	J. C. McNair	Do.
2453	1	Milwaukee, Wis	.....	Sercomb.	Do.
1877	1	Richmond, Va	.....	C. W. Reese	Do.
1878	1	Kemper Co., Miss...	.....	D. C. Lloyd	Do.
4490	1	Fort Jackson, Minn.	.....	T. Glover	Do.
10742	1	Statesville, N. C	Oct. 11, 1879	A. L. Barringer.....	Do.
9595	1	Wilmington, N. C...	Apr. —, 1878	John M. Harbifield .	Do.
10750	1	Clear Water, Fla ...	Aug. 26, 1879	S. T. Walker	Do.
10711	1	Nashville, Ga.....	—— —, 1880	W. J. Taylor	Do.
	18				

(192.) TANTILLA GRACILIS Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 132.

RESERVE SERIES.

4500	11	Indianola, Tex	.....	Capt. John Pope, U. S. A.	Alcoholic.
4750	1	Gilmer, Tex	.....	J. M. Glasco.....	Do.
	12				

(193.) TANTILLA HALLOWELLI Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1861, 74.

RESERVE SERIES.

2057	1	Eagle Pass, Tex	.....	A. Schott	Alcoholic.

(194.) TANTILLA NIGRICEPS Kennicott.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1860, 328.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4755	1	Fort Riley, Kans	.....	H. Brandt	Alcoholic.
2039	1	Gila River, N. Mex	.....	Dr. Thos. Webb	Do.
11766	6	Fresno, Cal	—— —, 1879	Gustav Eisen	Do.
	8				

(195.) TANTILLA CORONATA Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 131.

RESERVE SERIES.

4868	1	Liberty County, Ga.	.....	Dr. W. L. Jones	Alcoholic.
1875	1	Mississippi	.....	D. C. Lloyd	Do.
	2				

(196.) ABASTOR ERYTHROGRAMMUS Daudin.

Baird & Girard, Cat. N. A. Serp., 1853, 125.

RESERVE SERIES.

6426	1	New Berne, N. C	.....	Capt. Wm. Holden	Alcoholic.
8292	1	Wilmington, N. C	.....	Dr. A. Reuss	Do.
5556	1	Georgetown, S. C	.....	P. J. C. Weston	Do.
8049	1	Georgia	.....	R. R. Cuyler	Alc. type.
5558	3	Pensacola, Fla	.....	Dr. R. W. Jeffrey	Alcoholic.
9005	1	Kinston, N. C	.....	H. W. Welsher	Do.
9583	1	Arlington, Fla	April —, 1878	F. G. Goode	Cast.
10672	1	Gainesville, Fla	—— —, 1879	James Bell	Alcoholic.
	10				

(197.) FARANCIA ABACURA Holbrook.

Baird & Girard, Cat. N. A. Serp., 1853, 123.

RESERVE SERIES.

7291	2	Prairie Mer Rouge, La.	.....	.....	Alc. type.
8071	1	do	.....	J. Fairie	Alcoholic.
8373	1	Wilmington, N. C	.....	Dr. A. Reuss	Do.
8035	1	New Berne, N. C	.....	.....	Do.
8034	1	Anderson, S. C	.....	Miss C. Paine	Do.
6244	1	Pass Christian, Miss.	.....	.....	Do.
7293	1	Cartersville, Ga	.....	.....	Do.
9599	1	Arlington, Fla	April —, 1878	F. G. Goode	Cast.
10801	1	Chula, Va	May 21, 1878	F. H. Cushing	Alcoholic.
	10				

(198.) CHILOMENISCUS STRAMINEUS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1860, 339.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
6495	3	Cape St. Lucas, Cal.	.....	J. Xantus.....	Alc. type.
4674	2	....do.....	.....	....do	Do.
5596	4	San Marthe	.....	Paris Museum	Do.
12629	2	La Paz, Cal	Feb. —, 1882	L. Belding.....	Do.
	11				

(199.) CHILOMENISCUS EPHIPPICUS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 85.

RESERVE SERIES.

8897	2	Arizona Valley, Cal.	.....	J. H. Horn.....	Alcoholic.
8601	1	Camp Mojave, Ariz.	Sep. —, 1874	Dr. O. Loew.....	Do.
	3				

(200.) CHILOMENISCUS CINCTUS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1861, 303.

RESERVE SERIES.

12630	2	La Paz, Cal	Feb. —, 1882	L. Belding.....	Alcoholic.

(201.) CHIONACTIS OCCIPITALIS Hallowell.

Hallowell, P. R. R. Surv., Williamson's Rep., 1859, x, 15.

RESERVE SERIES.

8030	1	Camp Mojave, Ariz.	June —, 1877	Dr. J. G. Cooper....	Alcoholic.

(202.) CHIONACTIS OCCIPITALIS ANNULATA (Hallowell) Cope.

Kennicott, U. S. Mex. Bound. Surv., Repts. 1859, ii, 22.

RESERVE SERIES.

2105	2	Colorado Desert, Colo	.....	A. Schott.....	Alcoholic.

(203.) CONTIA MITIS Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 110.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2034	1	San Jose, Cal		Dr. J. L. LeConte	Alc. type.
8075	1	Oregon			Alcoholic.
2036	1	Petaluma, Cal		E. Samuels	Do.
11751	1	Fresno, Cal	—— —, 1879	Gustav Eisen	Do.
11777	3	do	—— —, 1879	do	Do.
	7				

(204.) CONTIA EPISCOPA EPISCOPA (Kennicott) Cope.

Kennicott, U. S. Mex. Bound. Surv. Repts., 1859, ii, 22.

RESERVE SERIES.

2042	1	Eagle Pass, Tex		A. Schott	Alcoholic.
2044	1	Indianola, Tex		Capt. John Pope, U. S. A.	Do.
2053	1	Llano Estacado, Tex		do	Do.
	3				

(206.) CONTIA EPISCOPA ISOZONA (Kennicott) Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1866, 304.

RESERVE SERIES.

8179	2	Utah		Exp. W. of 100th M.	Alc. type.
11417	1	Fort Whipple, Ariz.	—— —, 1865	Dr. E. Coues, U. S. A.	Alcoholic.
	3				

(208.) SONORA SEMIANNULATA Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 117.

RESERVE SERIES.

2109	1	Sonora, Mex		Col. J. D. Graham, U. S. A.	Alcoholic.

(209.) LODIA TENUIS Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 116.

RESERVE SERIES.

7289	1	Puget Sound, Wash. Ter.		Expl. Ex	Alcoholic.

210.) GYALOPIUM CANUM Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1860, 262.

RESERVE SERIES.

[illegible]	No. of spec.	Locality.	When collected.	From whom received.	Nature of [illegible]
[illegible]	1	Southern Arizona	—— —, 1873	H. W. Henshaw	Alcoh[illegible]
[illegible]	1	Ft. Buchanan, Ariz		Dr. B. J. D. Irwin, U. S. A.	D[illegible]
	2				

(211.) CEMOPHORA COCCINEA Blumenbach.

Baird & Girard, Cat. N. A. Serp., 1853, 118.

RESERVE SERIES.

[illegible]	1	Anderson Co., S. C.		Miss C. Paine	Alc. t[illegible] type.
[illegible]	1	Ft. George, Ark		(?)	Alcoh[illegible] holic
[illegible]	2	Prairie Mer Rouge, La.		Jas. Fairie	D[illegible] o.
[illegible]	1	Monticello, Miss		(?)	D[illegible] o.
[illegible]	1	New Orleans, La		(?)	D[illegible] o.
5221	1	Athens, Ala		W. M. Stewart	D[illegible] o.
[illegible]	1	Arlington, Fla	May —, 1878	G. Brown Goode	D[illegible] o.
10803	1	South Carolina		Dr. Geo. A. Moran	D[illegible] o.
9267	1	Ohio		Capt. Wm. Holden	D[illegible] o.
	10				

(212.) RHINOCHILUS LECONTEII Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 120.

RESERVE SERIES.

2030	1	Fort Tejon, Cal		Dr. A. L. Heerman	Alcoh[illegible] ho
2020	2	N. Canadian R		Lt. A. W. Whipple, U. S. A.	D[illegible] o.
5168	1	Ft. Buchanan, Ariz		Dr. B. J. D. Irwin, U. S. A.	D[illegible] o.
2016	1	Ft. Chadbourne, Tex.		Dr. E. Swift, U. S. A.	D[illegible] o.
2031	2	Llano Estacado, Tex.		Capt. John Pope, U. S. A.	D[illegible] o.
2023	1	Pecos River, Tex		Lt. A. W. Whipple, U. S. A.	D[illegible] o.
4471	1	Fort Bliss, N. M		Dr. S. W. Crawford, U. S. A.	D[illegible] o.
8021	1	Camp Grant, Ariz		Dr. E. Palmer	D[illegible] o.
8022	1	Fort Whipple, Ariz		Dr. E. Palmer	D[illegible] o.
8376	1	(?)	July 16, 1874	Dr. L. M. Taylor	D[illegible] o.
4472	1	Fort Tejon, Cal		John Xantus	D[illegible] o.
11743	4	Fresno, Cal	—— —, 1879	Gustav Eisen	
11784	2	.... do	—— —, 1879	....do	D[illegible] o.
11746	5	.... do	—— —, 1879	....do	D[illegible] o.
	24				

GENERAL SERIES.

10624	1	Fort Davis, Tex	—— —, 1878	H. Stew. W. F. von Manteufel, U. S. A.	Alcoho[illegible] le.
	1				

(213.) OSCEOLA ELAPSOIDEA Holbrook.

Baird & Girard, Cat. N. A. Serp., 1853, 133.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	Arlington, Fla	May —, 1878	G. Brown Goode	Alcoholic.
1	Enterprise, Fla		Dr. Wheeler	Do.
2				

(214.) OPHIBOLUS DOLIATUS DOLIATUS (Linn.) Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1860, 256.

RESERVE SERIES.

1	Kemper Co., Miss		D. C. Lloyd	Alc. type.
2	Saint Louis, Mo		Dr. Geo. Englemann	Alcoholic.
1	do			Do.
2	do		Dr. Geo. Englemann	Do.
1	Independence, Mo	June —, 1856	Dr. J. G. Cooper	Do.
1	Mississippi		Dr. B. F. Shumard	Do.
1	do		Lt. B. Couch, U. S. A	Do.
1	Fort Union, N. Mex		Lt. J. C. Ives, U. S. A	Do.
1	Galveston, Tex		Prof. E B. Andrews	Do.
1	Arkansas		Col. Kearney	Do.
2	Fort Towson, Ark		Dr. L. A. Edwards, U. S. A.	Do.
4	Southern Illinois		R. Kennicott	Do.
1	Roanoke Co., Va		Chas. Shoemaker	Do.
2	Prairie Mer Rouge, La.		Jas. Fairie	Do.
1	do		do	Do.
1	Louisiana		J. W. Wallace	Do.
1	New Orleans, La		N. O. Acad. Sci	Do.
1	Pensacola, Fla		Dr. Jarvis, U. S. A	Do.
1	Fort Lookout, Yellowstone.		Dr. F. V. Hayden	Do.
1	Columbus, Ga		Dr. Semer	Do.
1	Washington, D. C			Do.
1	do		Dr. E. Coues, U. S. A	Do.
1	do		do	Do.
1	Republican River, Kans.		Dr. W. A. Hammond, U. S. A.	Do.
1	Ft. Riley, Kansas		H. Brandt	Do.
2	Brazos River, Texas		Dr. B. F. Shumard	Do.
1	Hughes, Ohio		R. T. Shepherd	Do.
1	Gainesville, Fla	Mar. —, 1881	James Bell	Do.
1	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
37				

GENERAL SERIES.

1	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Alcoholic.
1	District of Columbia	May 18, 1880	C. Robinson, jr	Do.
1	Ball's Cross Roads, Va.	Sep. —, 1879	William Palmer	Do.
1	Hughes, Ohio		R. T. Shepherd	Do.
4				

(215.) OPHIBOLUS DOLIATUS COCCINEUS (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 89.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimens.
2384	1	Charleston, S. C	.....	Dr. S. B. Barker	Alcoholic.
7851	1	Apalachicola, Fla	.....	O. B. Seagrave	Do.
2305	1	Enterprise, Fla	—— —, 1853	Dr. Wheeler	Do.
4466	1	Appomattox Co., Va.	.....	J. P. Postell	Do.
8986	1	Kinston, N. C	.....	.....	Do.
10741	1	Clear Water, Fla	July 14, 1879	do	Do.
10743	1	Milton, Fla	.....	S. T. Walker	Do.
11988	1	Georgiana, Fla	.....	William Wittfield	Do.
12604	2	Galveston, Tex	Mar. —, 1882	Prof. D. S. Jordan	Do.
	10				

(217.) OPHIBOLUS DOLIATUS GENTILIS (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 90.

RESERVE SERIES.

1841	1	Red River, Ark	.....	Capt. R. B. Marcy, U. S. A.	Alcoholic.
1845	1	Brownsville, Tex	.....	Lt. B. Couch, U. S. A	Do.
1853	1	Caderita, N. Mex	.....	Lt. B. Couch, U. S. A	Do.
425	1	Mexico	.....	.....	Do.
2337	1	Calcasieu Pass, La	.....	G. Wurdemann	Do.
	5				

(218.) OPHIBOLUS DOLIATUS ANNULATUS (Linn.) Cope.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1860, 329.

RESERVE SERIES.

8345	1	Apache, Ariz	.....	H. W. Henshaw	Alcoholic.
1857	1	Matamoras	.....	Lt. B. Couch, U. S. A	Do.
	2				

(219.) OPHIBOLUS DOLIATUS TRIANGULUS (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 87.

RESERVE SERIES.

2380	1	Clark Co., Va	.....	Dr. C. B. R. Kennerly	Alcoholic.
1407	1	New York	.....	Mus. de Hist., Nat., Paris.	Do.
2433	1	Elmyra, Ill	.....	N. W. University	Do.
4858	1	Mount Joy, Pa	.....	J. R. Townsend	Do.
2327	2	Lebanon Springs, N. Y.	.....	.....	Do.
6247	2	Washington, D. C	.....	A. Pourtales	Do.
7449	1	do	.....	.....	Do.
4207	1	Racine, Wis	.....	Prof. S. F. Baird	Do.
2300	1	Mississippi	.....	Dr. B. F. Shumard	Do.
2314	1	Bedford, L. I	.....	J. C. Brevoort	Do.

(219.) OPHIBOLUS DOLIATUS TRIANGULUS (Linn.) Cope—Continued.

Baird & Girard, Cat. N. A. Serp., 1853, 87.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2330	1	Somerville, N. C		Dr. F. B. Hough	Alcoholic.
1663	1	Lebanon, Ind		S. B. Davis	Do.
128	1	(?)			Do.
787	1	Augusta, Ga		William Phillips	Do.
975	1	Baltimore, Md		Dr. E. Coues, U. S. A.	Do.
957	1	Kinston, N. C		J. W. Milner	Do.
7837	1	Washington, D. C		Dr. E. Coues, U. S. A.	Do.
9577	1	do	Nov. 29, 1877	William Talbut	Do.
9745	1	Montgomery Co., Md	May —, 1878	W. N. Steele	Do.
10083	1	Hughes, Ohio	Apr. —, 1879	R. T. Shepherd	Do.
9212	1	Dept. of Agriculture	—— —, 1874	Dr. L. N. Jaynes	Do.
8989	1	Wood's Holl, Mass		Dr. T. H. Bean	Do.
9284	1	Havre de Grace, Md.	—— —, 1876	A. L. Kumlien	Do.
	25				

(221.) OPHIBOLUS PYRRHOMELAS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1866, 305.

RESERVE SERIES.

7845	1	Fort Whipple, Ariz.		Dr. E. Palmer	Alcoholic.
8174	1	Arizona		Exp. W. of 100 M.	Do.
10200	1	White R. Cañon, Ariz		Dr. R. T. Burr	Do.
11421	1	Fort Whipple, Ariz.	—— —, 1865	Dr. E. Coues, U. S. A	Do.
	4				

(222.) OPHIBOLUS GETULUS GETULUS (Linn) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 85.

RESERVE SERIES.

2369	1	Cedar Keys, Fla		G. Wurdemann	Alcoholic.
5509	1	Charlotte Harbor, Fla.		Dr. S. B. Barker	Do.
2375	1	Indian River, Fla		G. Wurdemann	Do.
2376	1	Anderson, S. C		C. P	Do.
4378	1	Charleston, S. C		Dr. S. B. Barker	Do.
8077	1	New Berne, N. C			Do.
8358	1	Kinston, N. C		H. W. Welsher.	Do.
459	1	New York			Do.
4380	1	Washington, D. C		W. Pierce	Do.
2323	1	Gloucester, Va		Rev. C. Mann	Do.
2294	1	Mississippi		Dr. B. F. Shumard.	Do.
7276	1	Port Tobacco, Md		Miss Marshall	Do.
1857	1	Matamoras, Tex		Lt. B. Couch, U. S. A	Do.
8797	1	Augusta, Ga	Mar. 21, 1877	William Phillips	Do.
9109	1	Marietta, Ga	July 6, 1877		Do.
9014	1	Sandy Springs, Md	—— —, 1877	J. P. Stabler	Cast.
9146	1	do	—— —, 1877	do	Do.
11428	1	do		do	Eggs.
10469	1	Oakley, S. C	June —, 1880	A. L. Barker	
12697	1	Hyattsville, Md	—— —, 1882	William Gass	Alc.
	19				

(222.) OPHIBOLUS GETULUS GETULUS (Linn.) Cope—Continued.

Baird & Girard, Cat. N. A. Serp., 1853, 85.

GENERAL SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
10688	1	Gainesville, Fla	—— —, 1880	James Bell	Alcoholic.
9014	1	Sandy Springs, Md	June —, 1877	J. P. Stabler	Do.
10697	1	Gainesville, Fla			Do.
10678	1	Nashville, Ga	Nov. 18, 1880	W. J. Taylor	Do.
10344	1	Laurel, Md	July —, 1879	J. P. Stabler	Do.
10816	1	Gainesville, Fla		James Bell	Do.
9146	1	Maryland	July 5, 1877	J. P. Stabler	Do.
10074	2	Homosassa, Fla	April —, 1879	J. W. Milner	Do.
10098	1	Southampton Co., Va	May —, 1879	L. Kumlien	Do.
	10				

(223.) OPHIBOLUS GETULUS BOYLI (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 82.

RESERVE SERIES.

1698	1	El Dorado Co., Cal			Alcoholic
8144	1	San Francisco, Cal		Lt. R. S. Williamson, U. S. A.	Do.
4285	1	Fort Tejon, Cal		John Xantus	Do.
1703	1	Fort Reading, Cal		Lt. R. S. Williamson, U. S. A.	Do.
7847	2	Fort Whipple, Ariz		Dr. E. Palmer	Do.
8426	1	Southern Arizona	Oct. —, 1873	Dr. C. G. Newberry	Do.
1713	1	Col. Desert, Colo		Maj. W. H. Emory, U. S. A.	Do.
4284	1	Fort Yuma, Cal		Maj. G. H. Thomas, U. S. A.	Do.
8577	1	Santa Barbara, Cal.	—— —, 1875	W. L. Schumaker	Do.
1730	1	San Francisco, Cal		R. D. Cutts	Do.
5288	1	Cape St. Lucas, Cal.		John Xantus	Do.
10796	1	McCloud R., Wash. T	Feb. 10, 1876	Livingston Stone	Do.
11420	1	Fort Whipple, Ariz	April —, 1880	Dr. E. Coues, U. S. A	Do.
11787	3	Fresno, Cal	—— —, 1880	Gustav Eisen	Do.
12624	3	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
	20				

GENERAL SERIES.

10390	1	Fort Mojave, Ariz	—— —, 1879	Dr. R. E. Lightburne.	Alcoholic.
	1				

224.) OPHIBOLUS GETULUS SPLENDIDUS (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 83.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	Sonora, Mex		Col. J. D. Graham, U. S. A.	Alcoholic.
2	Pecos River, Tex		Dr. C. B. R. Kennerly	Do.
3				

(225.) OPHIBOLUS GETULUS SAYI (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 84.

RESERVE SERIES.

1	Kemper Co., Miss		D. C. Lloyd	Alc. type.
1	Monticello, Miss			Do.
1	Red River, Ark		Capt. R. B. Marcy, U. S. A.	Do.
1	Indianola, Tex			Do.
1	Fort Towson, Ark		Dr. L. A. Edwards, U. S. A.	Do.
2	Southern Illinois		R. Kennicott	Do.
1	Fort Riley, Kans		H. Brandt	Do.
1	Shawnee Mission, Kans.		S. Pass W. R. Exped.	Do.
1	Natchez, Kans			Do.
2	Fort Fillmore			Do.
1	Xalapa, Mex		R. M. D'Oca	Do.
2	Tyree Springs, Tenn		Prof. R. Owen	Do.
1	Tuscumbia, Ala		B. Pylus	Do.
1	Fort Cobb, Tex		C. S. McCarthy	Do.
1	Arkansas River		Dr. S. W. Woodhouse	Do.
1	Bridger's Pass, Wyo. Ter.		Lieut. F. T. Bryan, U. S. A.	Do.
1	New Orleans, La			Do.
1	do		N. O. Academy	Do.
1	Arkansas		Capt. J. P. McCown, U. S. A.	Do.
1	Senterfitt, Tex		Frank Longfield	Do.
1	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
1	Indianola, Tex		Col. J. D. Graham, U. S. A.	Do.
25				

(226.) OPHIBOLUS GETULUS NIGER (Linn.) Yarrow.

Proc. Nat. Mus., 1882, 438.

RESERVE SERIES.

2	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Alc. type.
2	Wheatland, Ind	—— —, 1881	R. Ridgway	Do.
4				

(227.) OPHIBOLUS GETULUS MULTICINCTUS (Linn.) Yarrow.

Proc. Nat. Mus., 1882, 440.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
11753	1	Fresno, Cal	—— —, 1880	Gustav Eisen	Alc. type.

(228.) OPHIBOLUS GETULUS EISENI (Linn.) Yarrow.

Proc. Nat. Mus., 1882, 439.

RESERVE SERIES.

11788	1	Fresno, Cal	—— —, 1880	Gustav Eisen	Alc. type.
11787	1	....do	—— —, 1880	....do	Alc. jun.
11744	1	....do	—— —, 1880	....do	Alcoholic.
	3				

(230.) OPHIBOLUS RHOMBOMACULATUS Holbrook.

Baird & Girard, Cat. N. A. Serp., 1853, 86.

RESERVE SERIES.

2385	1	Anderson, S. C		Miss C. Paine	Alc. type.
2358	1	Jackson, N. C		Fitzgerald	Alcoholic.
2357	1	Georgia		C. B. Adams	Do.
	3				

(231.) OPHIBOLUS CALLIGASTER Say.

Cope, Proc. Acad. Nat. Sci. Phila., 1860, 255.

RESERVE SERIES.

1702	1	Canadian River, Ark.		H. B. Mollhausen	Alcoholic.
1629	1	Saint Louis, Mo		Dr. Geo. Englemann	Do.
1721	1	North of Colorado River.		Capt. John Pope, U. S. A.	Do.
5229	1	Neosho Falls, Kans		B. F. Goss	Do.
4289	1	Southern Illinois		Dr. Hunter	Do.
12019	1	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
593	1	Central Illinois		R. Kennicott	Do.
	7				

(232.) DIADOPHIS PUNCTATUS PUNCTATUS (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 112.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1880	1	Carlisle, Pa		Prof. S. F. Baird	Alc. type.
1890	1	Pittsburgh, Pa			Alcoholic.
1895	1	Anderson, S. C		Miss C. Paine	Do.
2154	2	Columbus, Ga		Dr. Gesner	Do.
1969	1	Tyree Springs, Tenn.		Prof. R. Owen	Do.
7286	1	Marietta, Ohio		Prof. E. B. Andrews	Do.
1900	1	New York		Prof. S. F. Baird	Do.
1967	2	Southern Illinois		R. Kennicott	Do.
7834	1	Washington, D. C		Dr. E. Cones, U. S. A.	Do.
1881	2	Somerville, N. C			Do.
4823	1	St. Catherine, Canada.		Dr. D. W. Beadle	Do.
8794	1	Augusta, Ga		William Phillips	Do.
9110	1	Marietta, Ga			Do.
9115	1	Wilmington, N. C			Do.
9125	1	Newport, R. I	Nov. 8, 1875	Samuel Powell	Do.
9720	1	Moulton, Ala	—— —, 1856		Do.
10086	1	Hughes, Ohio	Apr. —, 1879	R. T. Shepherd	Do.
9996	1	Middletown, Conn		Museum Wesleyan University.	Do.
10585	1	Clear Water, Fla	July 14, 1879	S. T. Walker	Do.
1399	1	Washington, D. C	Aug. 27, 1881	C. Robinson, jr	Do.
1984	4	Georgiana, Fla		William Wittfield	Do.
9099	1				Do.
	28				

GENERAL SERIES.

9988	1	(?)			Alcoholic.
9110	1	Marietta, Ga			Do.
	2				

(234.) DIADOPHIS PUNCTATUS AMABILIS (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 113.

RESERVE SERIES.

2061	1	San José, Cal		Dr. J. L. Le Conte	Alc. type.
5178	1	Fort Stockton, Cal		Patrick Duffy	Do.
2070	1	Petaluma, Cal	—— —, 1856	E. Samuels	Do.
1897	1	Galveston, Tex		Prof. E. B. Andrews	Do.
2078	1	Pecos River, Tex		Capt. John Pope, U. S. A.	Do.
7288	1	Minnesota		C. Bellman	Do.
2067	1	Straits of Magdalena		Maj. W. H. Emory, U. S. A.	Do.
2076	1	Headwaters of Trinity.		Capt. John Pope, U. S. A.	Do.
6079	1	Sonora, Mex		Dr. Jarvis, U. S. A.	Do.
5018	1	Savannah, Ga		A. J. Skilton	Do.

(234). DIADOPHIS PUNCTATUS AMABILIS (Linn.) Cope—Continued.

Baird & Girard, Cat. N. A. Serp., 1853, 113.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
7285	1	Fort Dalles, Oreg	.....	Dr. George Suckley, U. S. A.	Alc. type.
7287	1	Southern Illinois	.....	R. Kennicott	Do.
1899	1	Cleveland, Ohio	.....	Dr. J. P. Kirtland	Do.
2155	1	Pearl River, Miss	.....	.....	Do.
2072	1	Cache Creek	.....	Lieut. A. W. Whipple, U. S. A.	Do.
8267	1	Camp Mojave, Ariz.	—— —, 1874	.....	Do.
11802	1	Fresno, Cal	—— —, 1879	Gustav Eisen	Do.
8602	1	Camp Mohave, Ariz.	Sept. —, 1875	Dr. O. Loew	Do.
11786	1	Fresno, Cal	—— —, 1879	Gustav Eisen	Do.
11802	1	....do	—— —, 1879	....do	Do.
	20				

GENERAL SERIES.

8602	1	Camp Mohave, Ariz.	Sept. —, 1875	Dr. O. Loew	Alcoholic.
10199	1	White River, Ariz.	—— —, 1879	Dr. R. T. Burr	Do.
	2				

(235.) DIADOPHIS PUNCTATUS PULCHELLUS (Linn.) Yarrow.

Baird & Girard, Cat. N. A. Serp., 1853, 115.

RESERVE SERIES.

8599	1	Utah	Sept. —, 1872	Dr. H. C. Yarrow	Alcoholic.
9766	1	Webster City, Iowa	June —, 1878	Charles Aldrich	Do.
	2				

(237.) DIADOPHIS ARNYI Kennicott.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1859, 99.

RESERVE SERIES.

1968	1	Hyette, Kans	.....	S. Arny	Alc. type.
1898	1	Rock Island, Ill	.....	J. B. Sargent	Do.
8019	1	Camp Grant, Ariz	.....	Dr. E. Palmer	Do.
8427	1	Camp Apache, Ariz.	Aug. —, 1873	H. W. Henshaw	Do.
	4				

(238.) DIADOPHIS REGALIS Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 115.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2062	1	Sonora, Mexico		Col. J. D. Graham, U. S. A.	Alc. type.
2064	1	Eagle Spring, Tex		Maj. W. H. Emory, U. S. A.	Alcoholic.
10627	1	Fort Davis, Tex	July —, 1878	Hosp. Stew. W. F. von Manteufel, U. S. A.	Do.
10628	1	do	do	do	Do.
	4				

(239.) CONIOPHANES IMPERIALIS Girard.

Girard, U. S. Mex. Bound. Surv. Repts., 1859, ii, 23.

RESERVE SERIES.

2060	1	Matamoras, Tex		Capt. S. Van Vliet, U. S. A.	Alcoholic.

(240.) HYPSIGLENA OCHRORHYNCHA Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1860, 246.

RESERVE SERIES.

5283	5	Cape St. Lucas, Cal		John Xantus	Alcoholic.
8031	1	Camp Brent, Ariz		Dr. E. Palmer	Do.
8032	1	Fort Whipple, Ariz		do	Do.
1732	1	Durango, Mex		R. D. Cutts	Do.
2303	1	Georgetown, S. C	—— —, 1855	Weston	Do.
9216	1	(?)		(?)	Do.
12648	3	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
	13				

(241.) HYPSIGLENA OCHRORYNCHA CHLOROPHÆA Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1860, 247.

RESERVE SERIES.

46776	1	Fort Buchanan, Ariz		Dr. B. J. D. Irwin, U. S. A.	Alc. type.

(242.) SIBON ANNULATUM SEPTENTRIONALE (Linn.) Cope.

Kennicott, U. S. Mex. Bound. Surv. Repts., 1859, ii, 16.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1312	1	Brownsville, Tex		G. Wurdemann	Alcoholic.
4267 4272	2	Matamoras, Mex			Do.
4273	2	do			
5317	2	Hills west of Vera Cruz.		Dr. Sartorius	Do.
	7				

(243.) TRIMORPHODON LYROPHANES Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1860, 343.

RESERVE SERIES.

4680	2	Cape St. Lucas, Cal.		John Xantus	Alcoholic.
5283	1	Fort Buchanan, Ariz.		Dr. B. J. D. Irwin, U. S. A.	Do.
12632	3	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
	6				

(244.) PHIMOTHYRA GRAHAMI Baird & Girard.

Baird and Girard, Cat. N. A. Serp., 1853, 104.

RESERVE SERIES.

2080	1	Presidio del Norte		Col. J. D. Graham, U. S. A.	Alc. type.
2081	1	Sonora, Mex		do	Do.
2082	1	do		do	Do.
4673	1	Fort Buchanan, Ariz.		Dr. B. J. D. Irwin, U. S. A.	Alcoholic.
4960	1	Pecos River, Tex			Do.
1767	1	Brownsville, Tex			Do.
4470	1	Mohave Village, Ariz		H. B. Mollhausen	Do.
7894	1	Fort Whipple, Ariz		Dr. E. Palmer	Do.
8424	2	Southeast Arizona	Oct. —, 1873	H. W. Henshaw	Do.
5347	1	Cape St. Lucas, Cal.		John Xantus	Do.
9101	1	Cottonwood Cañon, Utah.	—— —, 1871	John Kohler	Do.
8605	1	Fort Craig, N. Mex	—— —, 1874	Dr. G. W. Boughter	Do.
10716	1	Ogden, Utah	—— —, 1878	Davis	Do.
10198	1	White River Cañon, Ariz.	—— —, 1879	Dr. R. T. Burr	Do.
1392	1	Indianola, Tex		Col. J. D. Graham, U. S. A.	Do.
12637	3	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
12638	1	do	Feb. —, 1882	do	Alc. jun.
	20				

GENERAL SERIES.

10198	1	White River, Ariz	—— —, 1879	Dr. R. T. Burr	Alcoholic.

(246.) PHIMOTHYRA DECURTATA Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1868, 310.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
12639	1	La Paz, Cal	Feb. —, 1882	L. Belding	Alcoholic.

(248.) CYCLOPHIS VERNALIS De Kay.

Baird and Girard, Cat. N. A. Serp., 1853, 108.

RESERVE SERIES.

1502	1	Carlisle, Pa			Alc. type.
1493	2	Eastern Wisconsin	—— —, 1854	A. C. Barry	Alcoholic.
1494	1	do		do	Do.
1484	1	Iowa		Odell	Do.
1485	1	do		do	Do.
8425	1	Abiquin, N. Mex	Aug. —, 1874	Dr. O. Loew	Do.
1474	2	Cambridge, Mass			Do.
1499	2	Lebanon Spring, N.Y			Do.
1501	1	Westport, N. Y			Do.
5862	4	Brunswick, Me			Do.
5236	1	Neosho Falls, Kans			Do.
1490	1	Detroit, Mich			Do.
2204	1	Monroe County, Ill			Do.
1489	1	Owassee, Tex			Do.
1495	1	Mississippi			Do.
2198	1	Lapham, Minn		R. Kennicott	Do.
1476	1	Bridger Pass, Wyo		W. S. Wood	Do.
2199	2	Sand Hill, Nebr			Do.
434	2	Mexico			Do.
1472	2	Columbus, Ohio			Do.
9767	1	Webster City, Iowa	—— —, 1878	Charles Aldrich	Do.
9095	1	Merino Valley, N. Mex.	July —, 1875	Lt. W. L. Carpenter, U. S. A.	Do.
10800	1	Chula, Va	—— —, 1878	F. H. Cushing	Do.
	32				

GENERAL SERIES.

10663	1	Monroe, Ohio	May 12, 1880	R. T. Shepherd	Alcoholic.
10754	1	Plymouth Rock, Mass			Do.
10662	1	Monroe, Ohio	Mar. 12, 1880	R. T. Shepherd	Do.
10661	1	do	Mar. 12, 1880	do	Do.
9138	6	(?)			Do.
9136	1	Portland, Me		U. S. F. C	Do.
9296	2	(?)			Do.
2203	1	Fort Ripley, Minn			Do.
1491	1	Aux Plaines, Wis		R. Kennicott	Do.
1478	3	Racine, Wis		Prof. S. F. Baird	Do.
1482	1	Tioga County, N. Y		Hewell	Do.
1496	3	Quasqueton, Iowa		Dr. E. C. Bidwell	Do.
	22				

(249.) CYCLOPHIS ÆSTIVUS Linn.

Baird & Girard, Cat. N. A. Serp., 106.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1466	1	Kemper Co., Miss			Alcoholic.
1467	2	do			Do.
1468	1	do			Do.
7196	1	Cimarron River, N. Mex.			Do.
1439	1	Prince Geo. Co., Md.			Do.
1460	1	Tarboro', N. C			Do.
1436	2	Indianola, Tex			Do.
1437	1	Eagle Pass, Tex			Do.
1435	1	New Casswell, Tex			Do.
1433	1	San Antonio, Tex			Do.
2445	1	Matamoras, Mex		Lt. B. Couch, U.S. A.	Do.
1446	1	Indianola, Tex			Do.
1447	1	Gloucester Co., Va			Do.
2101	1	St. Simon's Isl., Ga			Do.
441	1	Savannah, Ga			Do.
1646	1	Southern Illinois			Do.
1444	1	Pensacola, Fla			Do.
4851	1	New Jersey			Do.
7205	1	Grand Coutean, La.			Do.
1427	1	Fort Smith, Ark			Do.
5235	1	Neosho Falls, Kans.			Do.
1450	1	Western Missouri			Do.
1448	1	Anderson, S. C			Do.
1449	1	do			Do.
7197	1	Fort Bliss, N. Mex			Do.
8795	1	Augusta, Ga		William Phillips	Do.
8938	3	Kinston, N. C		H. W. Welsher	Do.
9586	2	Arlington, Fla		F. C. Goode	Do.
9692	1	do	May —, 1878	G. Brown Goode	Do.
11401	1	Fort Macon, N. C	—— —, 1871	Dr. H. C. Yarrow	Do.
12027	1	Mt. Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
11412	1	Arlington, Va	Sep. 25, 1881	E. H. Hawley	Do.
	37				

GENERAL SERIES.

11993	11	Georgiana, Fla		W. M. Wittfield	Alcoholic.
10698	1	Clearwater, Fla		W. J. Taylor	Do.
10710	1	Nashville, Ga	Oct. 25, 1880	do	Do.
10684	1	Clearwater, Fla	Jan. —, 1880	Prof. D. S. Jordan	Do.
9932	1	Arlington, Fla	—— —, 1878	G. Brown Goode	Do.
9506	1	Southern States			Do.
9135	1	Kinston, N. C		J. W. Milner	Do.
8929	1	Wilmington, N. C			Do.
8796	1	Augusta, Ga		William Phillips	Do.
8984	1	Greytown, Tex		Dr. H. J. Anderson	Do.
9145	16	(?)			Do.
1648	4	Savannah, Ga			Do.
1492	1	Aux Plaines, Wis		R. Kennicott	Do.
	41				

(250.) COLUBER EMORYI Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 157.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2257	1	Fort Smith, Ark		Lt. A. W. Whipple, U. S. A.	Alcoholic.
4766	1	Fort Riley, Kans			Do.
1707	1	Arkansas			Do.
1694	1	Brazos River, Tex		Dr. B. F. Shumard	Do.
1712	1	Fort McKavett, Tex		Dr. H. J. Anderson	Do.
4965	1	Pecos River, Tex		Capt. John Pope, U. S. A.	Do.
1716	1	....do		Maj. W. H. Emory, U. S. A.	Do.
2263	1	Santa Caterina, Mex		Lt. B. Couch, U. S. A.	Do.
5506	1	Fort Bliss, N. Mex		Dr. S. W. Crawford, U. S. A.	Do.
2259	1	Kansas		R. Kennicott	Do.
	10				

(251.) COLUBER LINDHEIMERI Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 74.

RESERVE SERIES.

1713	1	New Braunfels, Tex		Dr. F. Lindheimer	Alcoholic.
1734	1	Indianola, Tex		Col. J. D. Graham, U. S. A.	Do.
2260	1	Near 32° L		Capt. John Pope, U. S. A.	Do.
	3				

(252.) COLUBER VULPINUS Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 75.

RESERVE SERIES.

1570	1	Grosse Isl., Mich		Rev. C. Fox	Alc. type.
7529	1	Racine, Wis			Do.
2324	1	Rock Island, Ill			Do.
1727	1	Fort Snelling, Minn		Dr. Geo. Suckley, U. S. A.	Do.
1729	1	....do			Do.
10578	1	Wheatland, Ind	May —, 1881	Robert Ridgway	Do.
5070	1	Kansas			Do.
9613	1	Webster City, Iowa	—— —, 1878	Charles Aldrich	Alcoholic.
10631	1	Gainesville, Fla	—— —, 1878	James Bell	Do.
	9				

GENERAL SERIES.

9927	1	Webster City, Iowa	—— —, 1878	Charles Aldrich	Alcoholic.
9613	1	....do	—— —, 1878	....do	Do.
10759	1	(?)			Do.
	3				

(253.) COLUBER QUADRIVITTATUS Holbrook.

Baird & Girard, Cat. N. A. Serp., 1853, 80.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4709	1	Micanopy, Fla.		Prof. L. Agassiz.	Alc. type.
1586	1	Georgetown, S. C.			Do.
1594	1	Society Hill, S. C.			Do.
1697	1	Saint Simon's Island, Ga.			Do.
1698	1	....do			Do.
6406	1	New Berne, N. C.			Do.
5504	1	Palatka, Fla.			Do.
463	1	Utah.			Do.
9691	1	Arlington, Fla	May —, 1878	G. Brown Goode	Do.
11983	4	Georgiana, Fla.		William Wittfield	Do.
10670	1	Gainesville, Fla.	—— —, 1880	James Bell.	Do.
12626	1	....do.	—— —, 1880	....do.	Do.
5070	1	Kansas			Do.
9602	1	Arlington, Fla.	April —, 1878	G. Brown Goode	Cast.
	17				

GENERAL SERIES.

11983	6	Georgiana, Fla		William Wittfield	Alcoholic.
10668	1	Gainesville, Fla.	—— —, 1880	James Bell.	Do.
10669	1	....do.	—— —, 1880	....do.	Do.
10672	1	Arlington, Fla.	—— —, 1879	F. C. Goode	Do.
11398	2	Gainesville, Fla.	April 7, 1881	James Bell.	Do.
9602	1	Arlington, Fla.	April —, 1878	G. Brown Goode	Do.
	12				

(254.) COLUBER OBSOLETUS OBSOLETUS (Say) Cope.

Baird & Girard, Cat. N. A. Serp., 1873, 73.

RESERVE SERIES.

1569	1	Carlisle, Pa.		Prof. S. F. Baird	Alc. type.
5502	1	Sprout River, Ala.			Do.
1697	2	Brazos River, Tex.			Do.
5503	1	Fort Riley, Kans.			Do.
1601	1	Western Missouri.		Dr. P. R. Hoy.	Do.
7212	2	Independence, Mo.			Do.
4710	1	Whitefield County, Ga.			Do.
7211	1	Creek Boundary			Do.
2438	1	Elmira, Ill.		E. R. Boardman	Do.
2432	2	Southern Illinois		R. Kennicott.	Do.
8960	1	Kinston, N. C.		J. W. Milner.	Do.
2438	1	Elmira, Ill			Do.
10389	2	Cheat River, Md.	Oct. —, 1879	F. P. McClean	Do.
10651	1	Wheatland, Ind	April —, 1881	Robert Ridgway	Do.
10806	1	Potomac Boat Landing, Va.		J. C. Van Hook	Do.
	19				

GENERAL SERIES.

12031	1	Mount Carmel, Ill.	Nov. —, 1881	L. M. Turner.	Alcoholic.
12020	1	....do	Nov. —, 1881	....do.	Do.
10652	1	Wheatland, Ind	April —, 1881	Robert Ridgway	Do.
	3				

(255.) COLUBER OBSOLETUS CONFINIS (Baird & Girard) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 76.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1563	1	Anderson, S. C		Miss C. Paine	Alc. type.
7266	2	Monticello, Miss		Miss H. Tunnison	Alcoholic.
762	1	Mississippi			Do.
1616	1	Northampton Co., N. C.			Do.
1579	1	do			Do.
5079	1	Wheelock, Tex			Do.
1600	1	Fort Morgan, Ala			Do.
1604	1	Tallahassee, Fla			Do.
5500	1	Grand Coutean, La			Do.
1570	1	Pensacola, Fla			Do.
8798	1	Augusta, Ga		William Phillips	Do.
1620	1	Southern Illinois			Do.
5505	1	Independence, Mo			Do.
	14				

(256.) COLUBER GUTTATUS Linn.

Baird & Girard, Cat. N. A. Serp., 1853, 78.

RESERVE SERIES.

1564	1	Kemper County, Miss		D. C. Lloyd	Alcoholic.
1612	1	Somerville, N. C		J. C. McNair	Do.
2193	1	Roanoke, Va			Do.
2359	1	Madison, Va		Dr. W. A. Hammond, U. S. A.	Do.
467	1	Roanoke, Va			Do.
4732	1	Micanopy, Fla			Do.
1615	1	Indian River, Fla			Do.
5508	1	Florida		G. Wurdemann	Do.
6507	1	Palatka, Fla			Do.
1621	1	St. Simon's Island, Ga		Prof. C. B. Adams	Do.
4395	1	Arkansas			Do.
8799	1	Augusta, Ga	—— —, 1878	William Phillips	Do.
8981	1	Kinston, N. C		J. W. Milner	Do.
2342	1	Warren, Mass			Do.
8366	1	Little Sarasota Bay, Fla.	—— —, 1875	Prof. F. B. Meek	Do.
9692	1	Arlington, Fla	May —, 1878	G. Brown Goode	Do.
9693	1	do	May —, 1878	do	Do.
12018	1	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
457	1	New York			Do.
9687	1	Arlington, Fla	—— —, 1878	G. Brown Goode	Cast.
	20				

GENERAL SERIES.

11991	5	Georgiana, Fla		Wm. Wittfield	Alcoholic.
10588	1	Clearwater, Fla	July 14, 1879	S. T. Walker	Do.
9601	1	Arlington, Fla	April —, 1878	G. Brown Goode	Do.
	7				

(257.) COLUBER BAIRDI Yarrow.

Bull. U. S. Nat. Mus., 17, 1880, 41.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
10403	1	Fort Davis, Tex	— —, 1878	Hospital Steward W. F. von Manteufel, U. S. A.	Alc. type.

(258.) SPILOTES COUPERI Holbrook.

Baird & Girard, Cat. N. A. Serp., 1853, 92.

RESERVE SERIES.

455	1	Liberty County, Ga.		Dr. W. L. Jones	Alcoholic.
458	1	do		do	Do.
	2				

(259.) SPILOTES EREBENNUS Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 158.

RESERVE SERIES.

1862	1	Eagle Pass, Tex		A. Schott	Alcoholic.
1860	1	Brownsville, Tex		Capt. S. Van Vliet, U. S. A.	Do.
1849	1	Matamoras, Mex		Capt. John Pope, U. S. A.	Do.
4504	1	Brunswick, Ga		D. C. Dowine	Do.
1843	1	Lower Rio Grande		A. Schott	Do.
1859	1	Matamoras, Mex		Lieut. B. Couch, U. S. A.	Do.
10824	1	Gainesville, Fla			
10490	1	do	July —, 1880	James Bell	Do.
10465	1	do	May —, 1880	do	Do.
	9				

GENERAL SERIES.

10761	1	Florida		James Bell	Alcoholic.
10565	1	Milton, Fla.	May —, 1881	S. T. Walker	Do.
10379	1	Clearwater, Fla	— —, 1879	do	Do.
	3				

(260.) PITYOPHIS MELANOLEUCUS Daudin.

Baird & Girard, Cat. N. A. Serp., 1853, 65.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4610	1	Mount Holly, N. J		Dr. Brown	Alcoholic.
8008	1	(?)			Do.
8997	1	St. John's River, Fla.	—— —, 1874	G. Brown Goode	Do.
8945	1	....do		....do	Do.
	4				

GENERAL SERIES.

10819	1	Gainesville, Fla		James Bell	Alcoholic.
10930	1	....do	April 7, 1881	....do	Do.
	2				

(261.) PITYOPHIS SAYI SAYI (Schlegel) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 151.

RESERVE SERIES.

1550	2	Near 38°			Alcoholic.
1575	1	Southern Illinois		R. Kennicott	Do.
1561	1	Rockland, Ill		J. D. Sargeant	Do.
1559	1	....do			Do.
1533	1	Fort Conrad, N. Mex			Do.
8003	3	Fort Tejon, Cal			Do.
1546	1	San Bernardino, Cal			Do.
1520	1	Santa Rita del Soto			Do.
4632	1	Southern fork Humboldt River.			Do.
5471	1	Puget Sound, Oreg		U. S. Expl. Exped	Do.
8004	2	Camp Grant, Ariz			Do.
1558	2	Fort Snelling, Minn			Do.
1534	1	Colorado Bottom		Maj. W. H. Emory, U. S. A	Do.
2287	1	Fort Steilacoom, Wash. Ter.		Dr. Geo. Suckley, U. S. A	Do.
5233	2	Nebraska		J. Reynolds	Do.
1518	1	Rush Lake, Sonora			Do.
8758	1	Fort Wingate, N. M.	—— —, 1873	Dr. C. G. Newberry	Do.
4646	1	Salt Lake, Utah			Do.
1532	1	Anton Chico, Tex			Do.
8759	1	Pagosa, Col	—— —, 1874	C. E. Aiken	Do.
10799	1	Davenport, Iowa	July —, 1881	D. S. Sheldon	Do.
	27				

(262.) PITYOPHIS SAYI BELLONA (Schlegel) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 66.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
8401	1	New Mexico	Sept. —, 1874	Dr. H. C. Yarrow	Alcoholic.
8405	1	....do	Sept. 24, 1874	Yarrow & Aiken	Do.
8406	1	....do	June —, 1874	H. W. Henshaw	Do.
8402	1	Colorado Chiquito, N. Mex.	July —, 1874	....do	Do.
8130	2	Fillmore, Utah	—— —, 1872	Dr. H. C. Yarrow	Do.
8139	1	Pyrmont, Nev	—— —, 1872	....do	Do.
8403	1	Wilton Springs, Ariz.	July —, 1874	Dr. J. T. Rothrock	Do.
8407	1	Gila River, Ariz	—— —, 1874	Dr. J. S. Newberry	Do.
1804	1	Huma Bay		Lieut. W. P. Trowbridge, U. S. A.	Do.
8565	1	St. Martin's Island, L. Cal.		Dr. T. H. Streets, U. S. N.	Do.
8594	1	Southern California	Aug. —, 1875	H. W. Henshaw	Do.
8592	1	Santa Barbara, Cal.	July —, 1875	....do	Do.
8670	1	....do	July —, 1875	Dr. H. C. Yarrow	Do.
8590	1	Kernville, Cal	Oct. —, 1875	H. W. Henshaw	Do.
9103	1	Fort Crook, Cal		J. Feldner	Do.
9321	2	Yellowstone River	—— —, 1873	J. H. Beaty	Do.
8591	1	Mohave Desert, Cal.	July —, 1875	Dr. O. Loew	Do.
8404	1	Pagosa, Cal	Sept. —, 1874	Lt. C. W. Whipple, U. S. A.	Do.
10812	1	Columbia River, Oreg.	Sept. 19, 1878	H. W. Henshaw	Do.
10731	1	Monterey, Cal	—— —, 1880	Prof. D. S. Jordan	Do.
10633	1	Fort Walla Walla, Wash. Ter.	—— —, 1880	Capt. Chas. Bendire, U. S. A.	Do.
10907	1	....do	June —, 1881	....do	Do.
10829	1	Senterfitt, Tex		Frank Longfield	Do.
8173	1	Arizona	—— —, 1871	F. Bischoff	Do.
11418	1	Fort Whipple, Ariz.		Dr. E. Coues, U.S.A.	Do.
9128	1	Yellowstone River	Aug. —, 1873	Prof. J. A. Allen	Do.
1840	2	Fort Benton, Mo		Col. J. D. Vaughan	Do.
1553	1	Yellowstone, Upper Missouri River.			Do.
1415	1	Mexico			Do.
31	1	Fort Kearney, Neb			Do.
1542	1	Presidio del Norte, Tex.		Maj. W. H. Emory, U. S. A.	Do.
4765	2	Fort Riley, Kans			Do.
8006	2	Fort Whipple, Ariz.		Dr. E. Palmer	Do.
8400	1	Oak Orchard, Ariz.	Aug. —, 1870	Dr. C. G. Newberry.	Do.
1548	1	Lower Rio Grande		Maj. W. H. Emory, U. S. A.	Do.
1540	2	Red River, Ark		Capt. Geo. B. McClellan, U. S. A.	Do.
1525	1	W. Fork New Creek			Do.
1530	1	Llano Estacado, Tex.		Capt. John Pope, U. S. A.	Do.
5465	1	Platte Valley			Do.
1539	1	Castaneulas, Mex	—— —, 1855	Lt. B. Couch, U. S. A.	Do.
9244	2	Fort Dalles, Oreg			Do.
1545	1	Poplar River			Do.
1519	1	San Antonio, Tex			Do.
9521	1	Honey Lake, Cal	July —, 1877		Do.
9243	1	Fort Kearney, Neb			Do.
1543	1	Poplar River		Dr. Geo. Suckley, U. S. A.	Do.

(262.) PITYOPHIS SAYI BELLONA (Schlegel) Cope—Continued.

Baird & Girard, Cat. N. A., Serp., 1853, 66.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
5469	1	San Francisco, Cal	.....	.....	Alcoholic.
1816	1	Monterey, Cal	.....	.....	Do.
1810	1	Pitt River, Oreg	.....	.....	Do.
1822	1	Wemas River	.....	Dr. J. G. Cooper	Do.
2243	1	Petaluma, Cal	.....	Mrs. M. E. Daniel	Do.
8582	1	Santa Barbara, Cal	Oct. —, 1874	H. W. Henshaw	Do.
	59				

GENERAL SERIES.

5465	3	Platte Valley, Kans	.....	C. Drexler	Alcoholic.
9147	4	Fort Kearney, Neb	.....	.....	Do.
8011	2	Fort Riley, Kans	.....	.....	Do.
11755	1	Fresno, Cal	—— —, 1879	Gustav Eisen	Do.
11745	5	....do	—— —, 1879	....do	Do.
11728	1	Camp 12, Nev	July —, 1867	Robert Ridgway	Do.
9521	1	Honey Lake, Cal	July —, 1877	H. W. Henshaw	Do.
10353	1	White River Cañon, Ariz.	—— —, 1875	Dr. R. T. Burr	Do.
10610	1	Camp Packer	—— —, 1875	....do	Do.
10913	1	Fort Walla Walla, Wash. Ter.	June —, 1881	Capt. Chas. Bendire, U. S. A.	Do.
8759	1	Pagosa, Cal	—— —, 1874	C. E. Aiken	Do.
8593	1	Santa Barbara, Cal.	July —, 1875	Dr. H. C. Yarrow	Do.
8782	1	California	—— —, 1876	P. Schumacher	Do.
9103	1	Fort Crook, Cal	.....	J. Feilner	Do.
8592	1	Santa Barbara, Cal.	July —, 1875	H. W. Henshaw	Do.
9130	1	(?)	.....	.....	Do.
	26				

(263.) PITYOPHIS VERTEBRALIS Blainville.

Cope, Proc. Acad. Nat. Sci. Phila., 1860, 342.

RESERVE SERIES.

4682	4	Cape St. Lucas, L. Cal.	.....	Jno. Xantus	Alcoholic.
12631	1	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
12644	1	....do	Feb. —, 1882	....do	Do.
	6				

(264.) PITYOPHIS ELEGANS Kennicott.

Kennicott, U. S. Mex. Bound. Surv. Repts., 1859, 18.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1722	1	Lower Rio Grande		A. Schott	Alcoholic.
4266	1	Between Arkansas and Cimarron, N. M.		J. H. Clark	Do.
8408	1	Southeastern Arizona.	Oct. —, 1873	H. W. Henshaw	Do.
8002	1	Camp Grant, Ariz.		Dr. E. Palmer	Do.
1706	1	Pecos and Rio Grande, Tex.			
8760	1	Southern Arizona	—— —, 1873	H. W. Henshaw	Do.
	6				

(265.) BASCANIUM CONSTRICTOR Linn.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1853, 93.

RESERVE SERIES.

7194	1	Tioga Co., N. Y.			Alcoholic.
2111	1	North Fork Ark. R.			Do.
4412	2	Calcasieu Pass, La.			Do.
4415	1	do			Do.
4436	1	Prairie Mer Rouge, La.		Jas. Fairie	Do.
5547	1	Grand Coteau, La			Do.
6252	2	Fort Jesup, Ark			Do.
4800	1	New Orleans, La			Do.
4447	1	Mississippi		Col. B. L. C. Wailes.	Do.
4438	1	do		R. Kennicott	Do.
4413	1	Western Missouri		Dr. P. R. Hoy	Do.
1744	1	Platte River, Mo			Alcoholic, and eggs.
1760	1	Long Lake, Mo			Alcoholic.
4444	1	Grosse Island, Mich.		Rev. C. Fox	Do.
4449	1	Tyree Springs, Tenn.		Prof. R. Owen	Do.
1758	1	Fort Smith, Ark			Do.
4443	1	St. Simon's Isl'd, Ga.		J. P. Postell	Do.
4448	1	Salem, N. C		J. T. Linebach	Do.
2274	2	Southern Illinois		R. Kennicott	Do.
4423	1	Charleston, S. C		Dr. S. B. Barker	Do.
7812	3	Fort Riley, Kans			Do.
2396	2	Salt Creek, Ohio			Do.
5354	3	Kansas		Dr. F. V. Hayden	Do.
8431	1	Pueblo, Colo	July 14, 1874	C. E. Aiken	Do.
1764	1	Brazos River, Tex			Do.
2130	1	Ruterville, Tex		Col. J. D. Graham, U. S. A.	Do.
2131	1	do		do	Do.
7195	3	Fort Kearney, Nebr.			Do.
2030	1	Fort Conrad, N. Mex.		Lieut. R. S. Williamson, U. S. A.	Do.
1748	1	Near Bridger's Pass, Wyo.			Do.
2003	1	Pole Creek Pass, Wyo.		W. S. Wood	Do.
1753	1	Red Fork Pass, Wyo.	—— —, 1856	do	Do.
4416	1	Delaware Co., Ohio.		E. F. Odell	Do.

(265.) BASCANIUM CONSTRICTOR Linn.—Continued.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1853, 93.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2132	1	Fort Tejon, Cal.			Alcoholic.
1765	1	Pitt River Valley, Cal.		Lieut. R. S Williamson, U. S. A.	Do.
1751	1	Presidio, Cal		Lieut. W. P. Trowbridge, U. S. A.	Do.
1741	1	San Francisco, Cal.		R. D. Cutts	Do.
2176	1	Klamath Lake, Oreg.			Do.
1768	1	Matamoras, Mex.		Lieut. B. Couch, U. S. A.	Do.
4736	1	Micanopy, Fla		Dr. J. H. Bean	Do.
4817	1	Palatka, Fla.		T. Glover	Do.
5549	2	Pensacola, Fla.		Dr. W. A. Hammond, U. S. A.	Do.
1749	1	Quasqueton, Iowa		Dr. E. C. Bidwell	Do.
1783	1	Salt Lake Valley, Utah.		J. S. Bowman	Do.
1775	2	Fort Dalles, Oreg		Gov. Stevens	Do.
1760	1	Fort Steilacoom, Wash.			Do.
458	1	Vermont			Do.
4445	1	Grosse Island, Mich.		Rev. C. Fox	Do.
9522	1	Honey Lake, Cal.	July —, 1877	H. W. Henshaw	Do.
9695	1	Arlington, Fla	May —, 1878	G. Brown Goode	Do.
10718	1	Ogden, Utah	—— —, 1878	Davis	Do.
10085	1	Hugh s, Ohio	April —, 1879	R. T. Shepherd	Do.
10717	1	Ogden, Utah		Davis	Do.
5226	1	Foot Steilacoom, Wash.			Do.
10719	1	Ogden, Utah	—— —, 1878	Davis	Do.
9126	1	Above Powder Riv.	Aug. —, 1873	Prof. J. A. Allen	Do.
10650	1	Wheatland, Ind	April —, 1881	Robert Ridgway	Do.
2855	1				Do.
8298	1	Fort Wayne, Ind.	—— —, 1869	Dr. B. J. D. Irwin, U. S. A.	Do.
11440	1	Gainesville, Fla	—— —, 1881	James Bell	Do.
9032	1	Statesville, N. C	June —, 1877	A. S. Barringer	Cast.
10053	1	Washington, D. C.	—— —, 1878	H. Horan	Do.
	74				

GENERAL SERIES.

12132	1	Gainesville, Fla		James Bell	Alcoholic.
11986	1	Georgiana, Fla		William Wittfield	Do.
11439	1	Gainesville, Fla	—— —, 1881	James Bell	Do.
10650	1	Wheatland, Ind	May —, 1881	Robert Ridgway	Do.
10769	1	Nashville, Ga	Aug. 22, 1880	W. J. Taylor	Do.
10756	1	(?)			Do.
10690	1	Gainesville, Fla	—— —, 1880	James Bell	Do.
10595	1	Clearwater, Fla	July 14, 1879	S. T. Walker	Do.
10765	1	(?)			Do.
10737	1	Clearwater, Fla	July 14, 1879	S. T. Walker	Do.
10766	1	(?)			Do.
10570	1	Gainesville, Fla	May —, 1881	James Bell	Do.
10764	1	(?)			Do.
10587	1	Clearwater, Fla	July 14, 1879	S. T. Walker	Do.
9032	1	Statesville, N. C	June —, 1877	A. L. Barringer	Do.
9985	1	Cobal , Conn	—— —, 1873	G. Brown Goode	Do.
10517	1	Corpus Christi, Tex.	Nov. —, 1880	S. M. Johnson	Do.

(265.) BASCANIUM CONSTRICTOR Linn.—Continued.

Baird & Girard, Proc. Acad. Nat. Sci. Phila., 1853, 93.

GENERAL SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Natu
10823	1	Gainesville, Fla		James Bell	Alec
4433	2	Prairie Mer Rouge, La.		J. Fairie	
7199	2	Liberty Co., Ga		Dr. W. L. Jones	
1431	1	New Braunfels, Tex		Dr. F. Lindheimer	
1428	2	Fort Towson, Ark		Dr. L. A. Edwards, U. S. A.	
4449	2	Tyree Springs, Tenn		Prof. R. Owen	
4424	2	Anderson Co., S. C		Miss C. Paine	
7200	1	Morgan, S. C		G. Wurdemann	
7789	1	Brownsville, Tex			
9107	1	Marietta, Ga			
5357	1	Nebraska		Lt. Reynolds, U.S.A.	
6389	1	Chicago, Ill		R. Kennicott	
8999	1	Fort Macon, N. C		Dr. Weyreck	
4428	1	Carlisle, Pa		Prof. S. F. Baird	
4438	1	Southern Illinois		R. Kennicott	
9604	1	Arlington, Fla	Apr. —, 1878	G. Brown Goode	
4420	3	Saint Louis, Mo		Dr. G. Englemann	
8121	1	Provo, Utah	—— —, 1872	Dr. H. C. Yarrow	
5790	1	(?)			
1775	2	Dallas, Tex		Dr. E. Palmer	
4450	2	Hampshire Co., Va		M. McDonald	
4412	2	Rutersville, Tex			
4438	1	Southern Illinois			
4426	2	Anderson Co., S. C		C. Paine	
1742	3	Platte River	—— —, 1857	Lieut. F. T. Bryan, U. S. A.	
4425	2	Carlisle, Pa		Prof. S. F. Baird	
5500	1	Grand Cotean, La			
1770	1	Pac. R. R. R. Survey		Dr. J. G. Cooper	
4691	1	(?)		Prof. S. F. Baird	
4437	2	Virginia			
4421	1	Georgetown, D. C		Weston	
4439	3	Marietta, Ohio		Prof. E. B. Andrews	
8357	1	Kinston, N. C		H. W. Welsher	
	67				

(266.) BASCANIUM CONSTRICTOR FLAVIVENTRIS (Baird) Yar Henshaw.

Baird & Girard, Cat. N. A. Serp., 1853, 97.

RESERVE SERIES.

4418	1	Puget Sound, Oreg		Exp. Exped	A.
8433	1	Tierra Amarilla, N. Mex.	Sept. 15, 1874	Prof. E. D. Cope	
1784	1	Salt Lake Valley		J. S. Bowman	
1757	2	Klamath Lake, Oreg		Exp. Exped	
1785	2	do		do	
8982	2	Kernville, Cal		E. Samuels	
10717	1	Ogden, Utah	—— —, 1878	Davis	
10719	1	do	—— — 1878	do	
2132	1	Fort Tejon, Cal			
5035	1	Arizona		Dr. B. J. D. Irwin, U. S. A.	
	13				

268.) BASCANIUM FLAGELLIFORME FLAGELLIFORME (Catesb.) Cope.

Baird & Girard, Cat. N. A. Serp., 1858, 98.

RESERVE SERIES.

Jogue ber.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
108	1	Pensacola, Fla		Dr. R. W. Jeffrey	Alcoholic.
121	1	Columbus, Ga		D. Gressner	Do.
07	2	Liberty Co., Ga	— —, 1856	Dr. W. L. Jones	Do.
61	1	Georgetown, S. C		Weston	
29	1	Florida			Do.
22	1	Clearwater, Fla	Oct. —, 1879	S. T. Walker	Do.
35	2	Gainesville, Fla		James Bell	Eggs, dry.
1	1	Arlington, Fla	May —, 1878	G. Brown Goode	Cast.
0	1	do	June —, 1878	do	Do.
	11				

GENERAL SERIES.

9	1	Gainesville, Fla	— —, 1880	James Bell	Alcoholic.
2	1	do	July —, 1880	do	Do.
2	1	(?)	— —, 1881	W. F. Roberts	Do.
2	1	Gainesville, Fla	— —, 1880	James Bell	Do.
7	1	do	— —, 1880	do	Do.
4	1	do	— —, 1881	do	Do.
	6				

269.) BASCANIUM FLAGELLIFORME PICEUM (Catesb.) Cope.

Cope, MSS.

RESERVE SERIES.

1	1	Camp Grant, Ariz		Dr. E. Palmer	Alcoholic.
6	1	Mohave Desert, Cal.	Sept. —, 1875	Dr. O. Loew	Head, alc.
	2				

70.) BASCANIUM FLAGELLIFORME TESTACEUM (Catesb.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 150.

RESERVE SERIES.

85	1	New Braunfels, Tex.		Dr. F. Lindheimer	Alc. type.
86	1	Red River, Ark.		Capt. R. B. Marcy, U. S. A.	Do.
96	1	Bet. Indianola and San Antonio, Tex.		Major W. H. Emory, U. S. A.	Do.
01	1	Indianola, Tex			Do.
76	1	Wheelock, Tex			Do.
08	2	Gila and Colorado		Col. J. D. Graham, U. S. A.	Do.
88	1	Alamos de Parros		Lieut. B. Couch, U. S. A.	Do.
429	1	New Mexico	— —, 1874	Dr. O. Loew	Do.
139	1	do			Do.
981	1	Copper Mines, N. M.		Major W. H. Emory, U. S. A.	Do.
996	1	Pesquieria Grande, N. Leon.	— —, 1853	Lieut. B. Couch, U. S. A.	Head, alc.

(270.) BASCANIUM FLAGELLIFORME TESTACEUM (Catesb.) Cope—Continued.

Baird & Girard, Cat. N. A. Serp,, 1853, 150.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
977	1	Pueblo, Colo			Alcoholic.
7203	1	Platte River, Mo	Sept. 12, 1856	Lt. F. T. Bryan, U. S. A	Do.
8428	1	Apache, Ariz	Aug. —, 1873	H. W. Henshaw	Do.
8116	1	Middle Utah	—— —, 1872	Dr. H. C. Yarrow	Do.
2004	1	Fort Yuma, Cal	—— —, 1855	Maj. G. H. Thomas, U. S. A.	Do.
1991	2	Canadian River		Lt. A. W. Whipple, U. S. A.	Do.
2012	1	Salt Lake, Utah			Do.
8175	2	Arizona	Oct. —, 1871	F. Bischoff	Do.
8859	1	San Francisco, Cal	Nov. —, 1875	A. W. Chase	Do.
2011	1	Petaluma Co., Cal		E. Samuels	Do.
9250	1	Pueblo, Colo	—— —, 1874	Dr. H. C. Yarrow	Do.
11780	2	Fresno, Cal	—— —, 1879	Gustav Eisen	Do.
11750	3	....do	—— —, 1879	....do	Do.
11425	1	Fort Whipple, Ariz	—— —, 1865	Dr. E. Coues, U. S. A.	Do.
1992	1	Santa Caterina, N. Leon.	—— —, 1853	Lieut. B. Couch, U. S. A.	Do.
1989	1	Copper Mines, Colva Numes.		Lieut E. S. Beckwith, U. S. A.	Do.
4388	1	Lajura, N. Mex		H. B. Mollhausen	Do.
12640	2	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
12641	1	....do	Feb. —, 1882		Do.
	37				

GENERAL SERIES.

11749	1	Fresno, Cal	—— —, 1879	Gustav Eisen	Alcoholic.
10391	1	Fort Mohave, Ariz	Oct. —, 1873	Dr. R. E. Lightburne.	Do.
	2				

(271.) BASCANIUM TÆNIATUM TÆNIATUM (Hallowell) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 160.

RESERVE SERIES.

1979	1	California		Dr. Wm. Gambel	Alcoholic.
8122	1	Provo, Utah	—— —, 1874	Dr. H. C. Yarrow	Do.
8124	1	....do			Do.
4384	1	Little Colorado		H. B. Mollhausen	Do.
1981	1	Colorado River		A. Schott	Do.
1983	1	Cañon Creek, Colo		Dr. C. G. Newberry	Do.
2110	1	West of Rio Grande			Do.
8432	1	Nutrias, N. Mex	July —, 1872	H. W. Henshaw	Do.
8120	1	Antelope Springs, Nev.	—— —, 1872	Dr. H. C. Yarrow	Do.
9498	1	Walker Basin, Cal	Sept. 2, 1875	H. W. Henshaw	Do.
9520	1	Carson, Nev	May —, 1877	....do	Do.
11422	1	Fort Whipple, Ariz	—— —, 1865	Dr. E. Coues, U. S. A.	Do.
	12				

(272.) BASCANIUM TÆNIATUM LATERALE (Hallowell) Cope.

Hallowell, Proc. Acad. Nat. Sci. Phila., 1853, 237.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4386	1	Fort Tejon, Cal.	.....	John Xantus	Alcoholic.
1972	1	Eagle Pass, Tex	.....	A. Schott	Do.
1982	1	Oregon	.....	Gov. Stevens	Do.
1974	1	Matamoras, Mex	.....	Lt. B. Couch, U. S. A.	Do.
4712	1	Fort Buchanan, Ariz.	.....	Dr. B. J. D. Irwin, U. S. A.	Do.
8597	1	Santa Barbara, Cal.	Aug. —, 1875	Dr. O. Loew	Do.
8595	1	Fort Tejon, Cal.	Aug. —, 1875	H. W. Henshaw	Do.
11776	1	Fresno, Cal.	—— —, 1879	Gustav Eisen	Do.
11423	1	Fort Whipple, Ariz.	—— —, 1865	Dr. E. Coues, U.S.A.	Do.
8434	1	Camp Grant, Ariz	Sept. 16, 1874	J. H. Rutter	Do.
	10				

(273.) BASCANIUM TÆNIATUM ORNATUM (Hallowell) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 102.

RESERVE SERIES.

1970	1	Howard Springs, Tex.	.....	Maj. W. H. Emory, U. S. A.	Alc. type.
1971	1	San Antonio, Tex.	.....	Col. J. D. Graham, U. S. A.	Alcoholic.
	2				

(274.) BASCANIUM AURIGULUM Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1861, 301.

RESERVE SERIES.

5793	1	Cape St. Lucas, Cal.	.....	John Xantus	Alc. type.

(275.) CHILOPOMA RUFIPUNCTATUM Cope.

Cope, Zool. Exp. W. 100 M., 1875, v, 544.

RESERVE SERIES.

8600	1	Southern Arizona	Sept. —, 1874	H. W. Henshaw	Alc. type.

(276.) EUTÆNIA SAURITA Linn.

Baird & Girard, Cat. N. A. Serp., 1853, 24.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
787	1	Somerville, N. C	—— —, 1854	J. C. McNair	Alc. type.
987	1	Pensacola, Fla		Dr. W. A. Hammond, U. S. A.	Alcoholic.
797	1	Lancaster, Mass		Prof. S. F. Baird	Do.
7221	1	Tennessee		Prof. R. Owen	Do.
7222	1	Tioga County, N. Y		E. E. Howell	Do.
5451	1	Toledo, Ohio		J. B. Trembly	Do.
757	1	Fort McKavit, Texas		Dr. W. W. Anderson	Do.
5260	1	Fort Cobb, Texas			Do.
685	3	New Orleans, La			Do.
7223	1	Indiana County, Pa		J. W. Dagins	Do.
782	4	Carlisle, Pa		Prof. S. F. Baird	Do.
5552	1	Savannah, Ga		R. V. Lloyd	Do.
7224	1	Connecticut		C. Wright	Do.
795	2	Virginia		C. Sanford	Do.
8953	1	Wood's Holl, Mass	—— —, 1875	V. N. Edwards	Do.
9991	1	Middleton, Conn		W. H. Barnes	Do.
9997	1			Museum Wesleyan University.	Do.
10657	1	Wheatland, Ind	April —, 1881	Robert Ridgway	Do.
11987	3	Georgiana, Fla	—— —, 1879	William Wittfield	Do.
783	2	Illinois		R. Kennicott	Do.
	29				

GENERAL SERIES.

10541	1	Gainesville, Fla	—— —, 1881	James Bell	Alcoholic.
	1				

(277.) EUTÆNIA SACKENI Kennicott.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1859, 98.

RESERVE SERIES.

8901	1	Palatka, Fla	April —, 1877	Prof. S. F. Baird	Alcoholic.
4502	2	do		T. Glover	Do.
4503	1				Do.
9502	1	Little Sarasota Bay, Florida.	—— —, 1874	Prof. F. B. Meek	Do.
10589	1	Clearwater, Fla	July 14, 1879	S. T. Walker	Do.
12596	1	Gainesville, Fla	April —, 1882	James Bell	Do.
	7				

(278.) EUTÆNIA FAIREYI Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 25.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
8061	1	Rock Island, Ill			Alcoholic.
8062	1	Chicago, Ill			Do.
752	1	Prairie Mer Rouge, La.		James Paine	Do.
5081	2	Wheelock, Tex		F. Kellogg	Do.
776	1	Racine River, Wis		Prof. S. F. Baird	Do.
767	1	Verdigris River, Indian Territory.			Do.
7226	1	Saint Louis, Mo		Dr. Geo. Englemann	Do.
771	1	Mississippi		Dr. B. F. Shumard	Do.
5237	1	Neosho Falls, Kans		B. F. Goss	Do.
10693	1	Gainesville, Fla	—— —, 1880	James Bell	Do.
10726	1	Texas		George B. Sennett	Do.
10060	1	St. James Parish, La.	April —, 1879	O. de la Piechardière	Do.
12036	3	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
9964	1	Southern States			Do.
9252	1	Illinois		R. Kennicott	Do.
9250	1	Lake Winnipeg	—— —, 1874	D. Gunn	Do.
	19				

GENERAL SERIES.

10773	1	(?)			Alcoholic.
10738	1	Clearwater, Fla	July 14, 1879	S. T. Walker	Do.
	2				

(279.) EUTÆNIA PROXIMA Say.

Baird & Girard, Cat. N. A. Serp., 1853, 25.

RESERVE SERIES.

7245	2	Headwaters of Colorado.		Capt. John Pope, U. S. A.	Alcoholic.
761	1	Brownsville, Tex		Capt. S. Van Vliet, U. S. A.	Do.
5180	2	Fort Stockton, Tex		Patrick Duffy	Do.
742	1	Pecos and Rio Grande, Tex.		Dr. C. B. R. Kennerly.	Do.
741	1	Calcasieu Pass, La		G. Wurdemann	Do.
5488	2	Grand Coteau, La		St. Chas. Coll	Do.
5487	2	Xalapa, Mex		R. M. D'Oca	Do.
149	1	Sierra Sun, Mex	Apr. —, 1855	Capt. John Pope, U. S. A.	Do.
731	1	Fox River, Wis		Prof. S. F. Baird	Do.
5484	1	Matamoras, Mex		Lieut. B. Couch, U. S. A.	Do.
759	1	Red River, Ark		Capt. R. B. Marcy, U. S. A.	Do.
753	1	San Pedro, Rio Grande.		Col. J. D. Graham, U. S. A.	Do.
754	1	Medina, Tex		do	Do.

(279.) EUTÆNIA PROXIMA Say—Continued.

Baird & Girard, Cat. N. A. Serp., 1853, 25.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
755	2	Orizaba, Mex			Alcoholic.
5486	1	Fort Riley, Kans			Do.
9113	1	Wilmington, N. C			Do.
759	1	Caderita, N. Leon		Lieut. B. Couch, U. S. A.	Do.
	22				

GENERAL SERIES.

10699	1	Avoca, N. C	Apr. —, 1878	J. W. Milner	Alcoholic.
10698	1	....do	Apr. —, 1878	....do	Do.
	2				

(280.) EUTÆNIÁ RADIX Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 34.

RESERVE SERIES.

719	1	Racine, Wis		Dr. P. R. Hoy	Alc. type.
8058	2	Fort Snelling, Minn.			Do.
5485	1	Fort Ripley, Minn			Do.
666	5	Platte River, Mo			Do.
712	1	Fort Benton, Mo			Do.
7246	1	Bridger's Pass, Wyo.		W. S. Wood	Do.
7241	1	Fort Union, N. Mex.		H. B. Mollhausen	Do.
9528	1	Pembina		Dr. E. Coues, U. S. A.	Alcoholic and young.
9529	1	....do	June —, 1873	....do	Alcoholic.
9530	1	....do	June —, 1873	....do	Do.
9531	1	Mouse River, Mont.	Aug. 10, 1873	....do	Do.
669	2	North Pecos River, Tex.		W. S. Wood	Do.
722	2	Nebraska		M. Walker	Do.
12035	1	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
	21				

GENERAL SERIES.

1044	11	Racine, Wis	—— —, 1853	Prof. S. F. Baird	Alcoholic.
9133	26	(?)			Do.
8058	1	Fort Snelling, Minn.			Do.
	38				

(281.) EUTÆNIA RADIX TWININGI (Baird & Girard) Coues & Yarrow.

Coues & Yarrow, Herp. Dak. and Mont., Bull. U. S. Geol. Sur., 1878, iv, 279.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
9537	1	Milk River, Mont...	July 15, 1874	Dr. E. Coues, U. S. A.	Alc. type.
9540	1	Frenchman's River .	——, 1874–5	Russell	Alcoholic.
9541	1	....do	——, 1873	Dr. E. Coues, U. S. A.	Do.
9539	1	Turtle Mt., Mont....	July 22, 1873	....do	Do.
9538	1	Mouse River, Mont .	June 5, 1873	....do	Do.
	5				

(282.) EUTÆNIA MACROSTEMMA MEGALOPS (Kennicott) Cope.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1860, 330.

RESERVE SERIES.

765	1	Tucson, Ariz.....	.....	Maj. W. H. Emory, U. S. A.	Alcoholic.
8056	1	Camp Grant, Ariz...	.....	Dr. E. Palmer	Do.
7247	1	Mexico.....	.....	Major Rich	Do.
7248	1	Chihuahua, Mex....	.....	Dr. T. H. Webb.....	Do.
8418	1	Rio Grande, Col....	June —, 1873	H. W. Henshaw	Do.
8940	1	Wyoming	.....	Lieut. W. L. Carpenter, U. S. A.	Do.
	6				

(283.) EUTÆNIA HAMMONDI Kennicott.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1860, 332.

RESERVE SERIES.

885	1	Fort Tejon, Cal	.....	Governor Stevens ..	Alcoholic.
894	1	San Diego, Cal	.....	Dr. W. A. Hammond, U. S. A.	Do.
7793	1	....do	.....	Dr. J. G. Cooper	Do.
8604	2	Mohave Desert, Ariz.	July —, 1875	Dr. O. Loew	Do.
8586	1	Southern California.	Aug. —, 1875	H. W. Henshaw	Heads, alc.
5496	2	Fort Tejon, Cal	.....	J. Xantus	Alcoholic.
9523	2	Eagle Lake, Cal....	.....	H. W. Henshaw	Do.
10911	3	Fort Walla Walla, Wash.	June —, 1881	Capt. Chas. Bendire, U. S. A.	Do.
9253	1	.....	.....	.....	Do.
	14				

GENERAL SERIES.

10917	4	Fort Walla Walla, Wash.	June —, 1881	Capt. Chas. Bendire, U. S. A.	Alcoholic.
10911	6	....do	June —, 1881	....do	Do.
	10				

(284.) EUTÆNIA MARCIANA Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 36.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature
844	1	Red River, Ark		Capt. R. B. Marcy, U. S. A.	Alc.
8744	1	San Ildefonso, N. Mex	Aug. —, 1874	Cope & Yarrow	Alcoh
8745	1	....do	Aug. —, 1874	Cope, Yarrow & Shedd.	D
8746	1	....do	—— —, 1874	Dr. H. C. Yarrow	D
849	1	Charco Escondido, Mex.		Lieut. B. Couch, U. S. A.	D
8584	1	Mohave Desert, Cal	July —, 1875	Dr. O. Loew	
8417	1	San Ildefonso, N. Mex	Aug. —, 1874	Dr. H. C. Yarrow	
8578	1	Los Angeles, Cal	July —, 1875	William Somers	
1369	1	Brownsville, Tex		Capt. S. Van Vliet, U. S. A.	
1417	1	Indianola, Tex		Col. J. D. Graham, U. S. A.	
1418	1	Eagle Pass, Tex		A. Schott	
851	1	Point Isabella, Tex		G. Wurdemann	
5351	2	Near 32d parallel		Lieut. Reynolds, U. S. A.	
852	2	Fort Yuma, Cal	—— —, 1855	Maj. G. H. Thomas, U. S. A.	
742	1	Near San Antonio, Tex.		Dr. C. B. R. Kennerly.	
860	1	Reutersville, Tex		Prof. Forschey	
7235	1	Sonora, Mex		Maj. W. H. Emory, U. S. A.	
8581	2	Pueblo, Colo	Oct. —, 1874	H. W. Henshaw	
8416	1	San Ildefonso, N. Mex	—— —, 1874	Dr. H. C. Yarrow	
10713	1	San Antonio, Tex	June —, 1879	C. W. Schuermann	
10727	1	(?)		Dr. Geo. B. Sennett.	
	24				

GENERAL SERIES.

861	19	Matamoras, Mex		Lieut. B. Couch, U. S. A.	
8589	1	New Mexico	Aug. —, 1874	Dr. H. C. Yarrow	
8741	1	San Ildefonso, N. Mex	Aug. —, 1874	....do	
8742	1	....do	Aug. —, 1874	....do	
8747	1	....do	Aug. —, 1874	....do	
8748	1	Fort Garland, N. Mex	July —, 1874	....do	
8749	2	Taos, N. Mex	Aug. —, 1874	....do	
8750	1	San Ildefonso, N. Mex	Aug. —, 1874	....do	
8752	1	....do	Aug. —, 1874	....do	
1370	1	Near 32° latitude		Capt. John Pope, U. S. A.	
	29				

(285.) EUTÆNIA VAGRANS VAGRANS (Baird & Girard) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 35.

RESERVE SERIES.

alogue mber.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
921	1	Near 38° latitude	.....	Lieut. E. G. Beckwith, U. S. A.	Alcoholic.
138	1	Pyrmont, Nev	—— —, 1872	Dr. H. C. Yarrow	Do.
142	2	Snake Valley, Nev	—— —, 1872	....do	Do.
933	1	Arispe	.....	Dr. F. H. Webb	Do.
866	1	Pitt River Cañon	.....	Lt. R. S. Williamson, U. S. A.	Do.
731	1	Taos, N. Mex	Aug. —, 1874	Dr. H. C. Yarrow	Do.
198	2	San Francisco Mountains, N. M.	.....	.....	Do.
733	1	Taos, N. Mex	Aug. —, 1874	Dr. H. C. Yarrow	Do.
20	1	....do	Aug. —, 1874	....do	Do.
27	2	....do	Aug. —, 1874	....do	Do.
21	1	(?)	Aug. —, 1874	Dr. O. Loew	Do.
28	2	Abiquiu, N. Mex	Aug. —, 1874	....do	Do.
21	1	San Ildefonso, N. M.	Aug. —, 1874	....do	Do.
22	1	....do	Aug. —, 1874	....do	Do.
12	1	Wilton Spring, N. M.	June —, 1873	Dr. C. G. Newberry	Do.
20	1	San Juan River, N. M.	.....	Lieut. R. Birnie, U. S. A.	(Head) alc.
16	3	Salt Lake to Calif	.....	S. G. Bereman	Alcoholic.
39	1	Ft. Steilacoom, Wash.	.....	.....	Do.
07	1	Humboldt River	.....	.....	Do.
26	1	Humboldt Bay, Cal.	.....	.....	Do.
26	1	Gold Mountains	.....	H. B. Mollhausen	Do.
15	1	Fort Benton, Mo	.....	.....	Do.
51	2	Upper Missouri	.....	Capt. Reynolds, U. S. A.	Do.
05	2	Cache la poudre Riv.	.....	Lieut. F. T. Bryan, U. S. A.	Do.
306	1	North Platte	.....	W. T. Wood	Do.
794	1	Fort Laramie, Wyo.	.....	Dr. J. G. Cooper	Do.
237	1	Medicine Bow, Wyo.	.....	Lieut. F. T. Bryan, U. S. A.	Do.
903	1	Dallas, Oreg	.....	Dr. Geo. Suckley, U. S. A.	Do.
064	3	Fort Whipple, Ariz	.....	Dr. E. Palmer	Do.
717	1	Mineral Spring, Ariz.	Aug. —, 1873	Dr. C. G. Newberry	Do.
711	1	San Luis Valley, Colo.	Sept. —, 1873	Dr. J. T. Rothrock	Do.
735	2	Conejos, Colo	.....	A. Barnes	Do.
723	1	Twin Lakes, Colo	Aug. —, 1873	Dr. J. T. Rothrock	Do.
713	1	Pagosa, Colo	Sept. —, 1874	C. E. Aiken	Do.
730	1	Twin Lakes, Colo	Aug. —, 1873	Dr. J. T. Rothrock	Do.
908	1	California	.....	Dr. Wm. Gambel	Do.
9505	1	Montana	.....	Dr. E. Coues, U. S. A.	Do.
9719	1	Wyoming	June 10, 1876	Lieut. E. Crawford, U. S. A.	Do.
10915	2	Fort Walla Walla, Wash.	.....	Capt. Chas. Bendire, U. S. A.	Alc. (jun.)
9514	5	Montana	.....	Dr. E. Coues, U. S. A.	Alcoholic.
901	1	Humboldt Bay, Cal.	.....	Lieut. W. P. Trowbridge, U. S. A.	Do.
8419	1	Pagosa, Colo	Sept. 7, 1874	A. Barnes	Do.
8171	1	Arizona	—— —, 1871	Exp. W. of 100 M	Do.
	59				

(284.) EUTÆNIA MARCIANA Baird & G ype—Cont'd.

Baird & Girard, Cat. N. A. Serp., 1

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collec	received.	Nature of specimen.
844	1	Red River, Ark		Ridgway	Alcoholic.
					Do.
					Do.
8744	1	San Ildefonso, N. Mex	A	R. Anderson, U. S. A.	Do.
8745	1	....do		Dr. C. B. R. Kennerly	Do.
8746	1	....do		C. Drexler	Do.
849	1	Charco Escondid Mex.		Dr. C. B. R. Kennerly	Do.
8584	1	Mohave Desert		Lieut. E. G. Beckwith, U. S. A.	Do.
8417	1	San Ildefonso		....do	Do.
8578	1	Los Angeles		J. S. Bowman	Do.
1369	1	Brownsvil		Lt. F. T. Bryan, U. S. A.	Do.
1417	1	Indian			Do.
					Do.
1418	1	Eag s Pass		W. S. Wood	Do.
851	1	P bridger, Utah		C. Drexler	Do.
5351	2	N Bridger		U. S. Exp. Ex	Do.
		braska		Lt. Reynolds, U. S. A.	Do.
852	2	)		Dr. H. C. Yarrow	Do.
		r. Steilacoom, Wash		Dr. Geo. Suckley, U. S. A.	Do.
742		P. R. R. S.		Dr. J. G. Cooper,	Do.
860		French Creek, Colo		Lieut. W. L. Carpenter, U. S. A.	Do.
723	1	North Creek, Utah	— —, 1872	Dr. H. C. Yarrow	Do.
	1	Rush Lake, Utah	— —, 1872	....do	Do.
	1	Nebraska		Dr. Geo. Suckley, U. S. A.	Do.
	1	Provo, Utah	— —, 1872	Dr. H. C. Yarrow	Do.
	1	Beaver Lake, Utah	— —, 1872	....do	Do.
	2	Rush Lake. Utah	— —, 1872	....do	Do.
8137	1	Beaver Lake, Utah	— —, 1872	....do	Do.
8134	1	....do	— —, 1872	....do	Do.
921	1	Near 38° Lat		Lt. E. G. Beckwith, U. S. A.	Do.
8715	1	(?)	— —, 1874	Dr. H. C. Yarrow	Do.
8422	1	New Mexico	Aug. —, 1874	Dr. O. Loew	Do.
8935	1	(?)			Do.
	40				

(286.) EUTÆNIA VAGRANS ANGUSTIROSTRIS (Baird & Girard) Cop

Kennicott, Proc. Acad. Sci. Phila., 1860, 332.

RESERVE SERIES.

959	1	Para Coahula, Mex		Lt. B. Couch, U. S. A	Alcoholic

(287.) EUTÆNIA ELEGANS Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 34.

RESERVE SERIES.

	Locality.	When collected.	From whom received.	Nature of specimen.
	..., Cal..	.....	H. W. Henshaw	Alcoholic.
	...ev...	Sept. —, 1876	Dr. W. A. Hammond, U. S. A.	Do.
	.....	.....	H. W. Henshaw	Do.
	...ia	—— —, 1875	....do	Do.
	.....	Aug. —, 1875	....do	Do.
	...rnia.....	.....	....do	Do.
	...amath, Oreg	Aug. 29, 1878	....do	Do.
	...gon	Sept. —, 1878	....do	Do.
	....do	Sept. —, 1878	....do	Do.
1	Camp Warner, Oreg	Aug. 10, 1878	....do	Do.
1	....do	Aug. 10, 1878	....do	Do.
1	Camp Bidwell, Cal..	July —, 1878	....do	Do.
1	....do	July —, 1878	....do	Do.
1	....do	July —, 1878	....do	Do.
1	....do	July —, 1878	....do	Do.
16				

GENERAL SERIES.

1	Monterey, Cal	—— —, 1880	Prof. D. S. Jordan ..	Alcoholic.
1	Karawapin Valley, Oreg.	Aug. 13, 1878	Exp. west of 100th M	Do.
1	....do	Aug. 13, 1878	....do	Do.
1	....do	Aug. 13, 1878	....do	Do.
1	Southern California	—— —, 1875	H. W. Henshaw	Do.
5				

(288.) EUTÆNIA CYRTOPSIS Kennicott.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1860, 333.

RESERVE SERIES.

1	Durango, Mexico ...	.....	Dr. Thos. H. Webb .	Alcoholic.
1	(?)	.....	....do	Do.
1	White River Cañon, Ariz.	—— —, 1879	Dr. R. T. Burr	Do.
1	Cape St. Lucas, Cal.	.....	John Xantus	Do.
4				

89.) EUTÆNIA CYRTOPSIS OCELLATUS (Kennicott) Cope.

Cope, Bull. Nat. Mus., 17, 1880, 22.

RESERVE SERIES.

2	Helotes, Tex	.....	G. W. Marnock	

(294.) EUTÆNIA SIRTALIS PARIETALIS (Linn.) Cope—Continued.

Say, Long's, Ex. Rocky Mts., 1823, i, 186.

GENERAL SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
11722	6	Camp 12, Nev	July —, 1867	Robert Ridgway	Alcoholic.
10636	1	Fort Walla Walla, Wash.	—— —, 1880	Capt. Chas. Bendire, U. S. A.	Do.
10635	1	....do	—— —, 1880	....do	Do.
10916	8	....do	June —, 1881	....do	Do.
900	2	California		Lieut. R. S. Williamson, U. S. A.	Do.
870	2	Fort Benton, Mo			Do.
8068	2	(?)			Do.
	22				

(295.) EUTÆNIA SIRTALIS OBSCURA (Linn.) Cope.

Cope, MSS.

RESERVE SERIES.

1049	1	Grosse Isle, Mich		Rev. C. Fox	Alcoholic.
7789	1	Washington, D. C			Do.
4662	1	Carson Valley, Nev		Capt. J. H. Simpson, U. S. A.	Do.
974	5	Westport, N. Y			Do.
904	1	Medicine River	Aug. —, 1856	Lieut. F. T. Bryan, U. S. A.	Do.
1019	3	Lac qui parle, Minn.	—— —, 1854	A. L. Riggs	Do.
621	1	Fort Kearney, Nebr		W. S. Wood	Do.
9124	1	Havre de Grace, Md.	—— —, 1877	J. W. Milner	Do.
10810	1	Southern Oregon	July —, 1878	H. W. Henshaw	Do.
10811	1		July —, 1878	....do	Do.
9960	3				Do.
12034	1	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
964	2	Tahat Plains, Oreg		Dr. J. G. Cooper	Do.
9102	3	Fort Crook, Cal		J. Feilner	Do.
1051	1	Wisconsin		Rev. A. C. Barry	Do.
692	2	New Orleans, La		Acad. Nat. Sci	Do.
652	2	Platte River, Nebr		W. S. Wood	Do.
320	3	Kansas		Dr. J. G. Cooper	
612	2	Milk River, Mont		W. S. Wood	
710	1	Ocate, N. Mex		Dr. Warren	
	36				

GENERAL SERIES.

615	1	Fort Kearney, Nebr		W. S. Wood	Alcoholic.
606	2	Nebraska		Dr. W. A. Hammond, U. S. A.	Do.
357	1	Fort King		Dr. J. G. Cooper	Do.
656	1	Southern Platte		....do	Do.
4654	2	Fort Laramie, Wyo.			Do.
4639	1	Missouri River			Do.
714	1	Bryan's Fork		Lieut. G. Warren, U. S. A.	Do.
695	1	Platte River		Col. J. D. Vaughan	Do.
651	2	....do		W. S. Wood	Do.
650	1	Cimarron		....do	Do.
619	2	Between Arkansas and Cimarron.		....do	Do.
635	2	Independence, Mo		J. H. Clark	Do.

.) EUTÆNIA SIRTALIS SIRTALIS (Linn.) Cope—Continued.

Baird & Girard, Cat. N. A. Serp., 1853, 30.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	Florida			Alcoholic.
1	Indian River, Fla		Lt. R. S. Williamson, U. S. A.	Do.
1	Centerville, Md			Do.
1	Tyree Springs, Tenn		Prof. R. Owen	Do.
1	Matamoras, Mex		Lt. B. Couch, U. S. A.	Do.
1	Charleston, S. C			Do.
4	Lake Superior		Dr. Geo. Suckley, U. S. A.	Do.
4	Clark Co., Va		Dr. C. B. R. Kennerly	Do.
2	Saint Louis, Mo		Dr. Geo. Engelmann	
2	Racine, Wis	—— —, 1853	Prof. S. F. Baird	Do.
1	Yellowstone River		Dr. F. V. Hayden	Do.
8	Aux Plaines, Wis		R. Kennicott	Do.
1	Republican River			Do.
2	Pole Creek, N. M		Dr. P. R. Hoy	Do.
2	Northfield, Ill		R. Kennicott	Do.
3	Kinston, N. C		J. W. Milner	Do.
1	Union Co., Tenn		J. N. B. Scarborough	Do.
2	Arlington, Fla	Apr. —, 1878	G. Brown Goode	Do.
1	Middletown, Conn		W. H. Barnes	Do.
3	Mt. Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
4	Foxburg, Pa	—— —, 1848		Do.
3	Bridger's Pass, Wyo		Dr. W. A. Hammond, U. S. A.	Do.
1	Fort Pierre, Nev		Dr. Evans	Do.
1	Columbus, Ohio		Dr. J. M. Wheaton	Do.
1	Fairfax Co., Va	May —, 1879	J. B. Greene	Do.
83				

GENERAL SERIES.

1	(?)	—— —, 1880	James Bell	Alcoholic.
1	Clearwater, Fla	Aug. 26, 1879	S. T. Walker	Do.
1	....do	Oct. —, 1879	....do	Do.
1	Fort Davis, Tex	July —, 1878	Hosp. Stew. W. F. von Manteufel, U. S. A.	Do.
1	Clearwater, Fla	May —, 1879	S. T. Walker	Do.
1	Gloucester, Mass		U. S. F. C	Do.
1	Nashville, Ga	Nov. 9, 1880	William J. Taylor	Do.
1	Clearwater, Fla	—— —, 1879	S. T. Walker	Do.
1	Florida	Sept. —, 1880	James Bell	Do.
1	Avoca, N. C	Apr. —, 1878	J. W. Milner	Do.
1	Middletown, Conn		Mus. Wes. Univ	Do.
1	(?)			Do.
1	(?)			Do.
1	Monroe, Ohio	Mar. 12, 1880	R. T. Shepherd	Do.
1	Gainesville, Fla	Apr. 22, 1881	James Bell	Do.
2	(?)		J. B. Shepherd	Do.
1	Gainesville, Fla		James Bell	Do.
1	....do	Apr. —, 1881	....do	Do.
6	Wisconsin		Rev. O. C. Barry	Do.
4	Grosse Isle, Mich		Rev. C. Fox	Do.
2	Detroit, Mich	—— —, 1853	Prof. S. F. Baird	Do.
4	Racine, Wis	—— —, 1853	....do	Do.

(291.) EUTÆNIA SIRTALIS SIRTALIS (Linn.) Cope—Continued.

Baird & Girard, Cat. N. A. Serp., 1853, 30.

GENERAL SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
7000	5	Columbus, Ohio			Alcoholic
7225	1	Port Huron, Mich	Mar. —, 1863	Prof. S. F. Baird	Do.
1025	1	Root River, Wis	—— —, 1853	do	Do.
976	2	Western Missouri		Dr. P. R. Hoy	Do.
5363	4	New Buffalo, Mich			Do.
8299	2	Fort Wayne, Ind	—— —, 1869	Dr. B. J. D. Irwin, U. S. A.	Do.
8301	1	do	—— —, 1869	do	Do.
8300	2	do	—— —, 1869	do	Do.
1042	13	Foxburg, Pa	—— —, 1848	(?)	Do.
999	1	Meadville, Pa		J. F. Thickstun	Do.
7805	5	Washington, D. C		Dr. E. Coues, U.S.A.	Do.
1040	1	Liberty Co., Ga			Do.
7213	1	Cairo, Ill	Sept. 12, 1856	Lt. F.T. Bryan, U.S.A	Do.
1055	1	West Wash., D. C			Do.
1026	1	Madison, Va			Do.
8961	1	Brookhaven, Mass		Miss T.J.R. Kienan	Do.
1005	5	Gloucester, Va			Do.
1034	9	Salem, N. C		Lineback & School	Do.
1013	1	Preston Co., Va			Do.
8838	1	Mt. Carmel, Ill	June —, 1875	Samuel Turner	Do.
1050	1	Adirondack Mountains, N. Y.			Do.
1031	4	Eutaw, Ala	—— —, 1853	Prof. E. B. Andrews	Do.
8781	2	Belleville, Ill	Sept. —, 1874	Dr. A. Reuss	Do.
9134	2	(?)			Do.
	102				

(292.) EUTÆNIA SIRTALIS DORSALIS (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 31.

RESERVE SERIES.

6301	1	Arkansas			Alcoholic
977	1	San Pedro, Tex		Dr. P. R. Hoy	Do.
1033	1	Blount Co., Tex			Do.
865	1	San Francisco, Cal		Gov. Stevens	Do.
892	1	Platte River, Mo	July 12, 1856	Lieut. F. T. Bryan, U. S. A.	Do.
989	1	St. Simon's Isl., Ga		Postell	Do.
1040	1	Liberty Co., Ga	—— —, 1853	Dr. W. L. Jones	Do.
980	1	Albuquerque, N. M		H. B. Mollhausen	Do.
5491	1	Matamoras, Mex		Lieut. B. Couch, U. S. A.	Do.
10730	1	Gainesville, Fla	—— —, 1880	James Bell	Do.
9622	1	Arlington, Va	May 12, 1877	Wm. Polner	Cast.
	11				

(293.) EUTÆNIA SIRTALIS ORDINATA (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 32.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	Adirondacks, N. Y.			Alcoholic.
2	Androscoggin, Me		Dr. C. Girard	Do.
1	Halifax, Nova Scotia			Do.
1	Martha's Vineyard, Mass.		Dr. Wm. Stimpson	Do.
1	Alabama		W. M. Stewart	Do.
1	Eutaw, Ala		Prof. A. Winchell	Do.
1	Tioga Co., N. Y		E. E. Howell	Do.
1	Woods Holl, Mass	July —, 1875	V. N. Edwards	Do.
1	Charleston, S. C			Do.
1	....do			Do.
11				

(294.) EUTÆNIA SIRTALIS PARIETALIS (Linn) Cope.

Say, Long's, Ex. Rocky Mts., 1823, i, 186.

RESERVE SERIES.

1	El Paso, Tex		Col. J. D. Graham, U. S. A.	Alcoholic type.
1	California		R. D. Cutts	Alcoholic.
1	Fort Benton, Mo		Lt. G. Warren, U. S. A.	Do.
1	Republican Riv., Mo.		Lieut. F. T. Bryan, U. S. A.	Do.
1	Salt Lake City, Utah		J. S. Bowman	Do.
1	38° Lat., Utah		Lieut. E. G. Beckwith, U. S. A.	Do.
1	Canoe Creek Valley, Cal.		Gov. Stevens	Do.
2	California		Lieut. R. S. Williamson, U. S. A.	Do.
1	Tomales Bay, Cal		E. Samuels	Do.
1	Bitterwood Valley		E. E. Howell	Do.
2	Shoalwater Bay, Oreg.		Gov. Stevens	Do.
1	Rinconado, Mex		Lt. B. Couch, U. S. A.	Do.
1	Fort Dallas, Oreg		Gov. Stevens	Do.
1	Fort Snelling, Minn.		....do	Do.
2	Puget Sound, Oreg			Do.
2	Fort Laramie, Wyo.			Do.
1	Milk Riv., Montana.	—— —, 1873	Dr. E. Coues, U. S. A.	Do.
1	....do	—— —, 1873	....do	Do.
2	Lake Tahoe, Nev	—— —, 1878	H. W. Henshaw	Do.
1	California	—— —, 1877	....do	Do.
1	Fort Walla Walla, Wash.	—— —, 1880	Capt. Chas. Bendire, U. S. A.	Do.
1	....do	—— —, 1880	....do	Do.
1	....do	—— —, 1880	....do	Do.
1	....do	—— —, 1880	....do	Do.
1	....do	June —, 1881	....do	Adults and young.
1	Des Chutes R., Oreg.	Sept. 10, 1878	H. W. Henshaw	Alcoholic.
1	....do	Sept. 10, 1878	....do	Do.
1	Oregon	Sept. —, 1878	....do	Do.
1	Camp Bidwell, Cal.	July —, 1878	....do	Do.
1	Fort Walla Walla, Wash.	June —, 1881	Capt. Chas. Bendire, U. S. A.	Do.
1	....do	June —, 1881	....do	Do.
3	Truckee River, Nev.	July —, 1867	R. Ridgway	Do.
39				

(297.) EUTÆNIA SIRTALIS TETRATÆNIA (Linn.) Cope.

Cope, MSS.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
866	2	Pitt River, Cal		Lieut. R. S. Williamson, U. S. A.	Alcoholic.

(298.) EUTÆNIA ATRATA Kennicott.

Kennicott, P. R. R. Surv., 1860, xii, pt. ii, 296.

RESERVE SERIES.

970	2	San Francisco, Cal		R. D. Cutts	Alc. type.
971	1	Crescent City, Cal		Paul Schumacher	Do.
972	1	Upper Missouri and Yellowstone.		Dr. J. G. Cooper	Do.
8367	1	Pacific R. R. Survey		do	Do.
10808	1	West Oregon	Feb. 10, 1876	H. W. Henshaw	Do.
	6				

(299.) EUTÆNIA COOPERI Kennicott.

Kennicott, P. R. R. Surv., 1860, xii, pt ii, 296.

RESERVE SERIES.

593	3	Puget Sound, Oreg		Dr. C. B. R. Kennerly.	Alcoholic.
590	2	do		do	Do,
3208	1	Rocky Mountains		Dr. Thos. H. Webb	Do.
951	5	Fort Steilacoom, Wash. Ter.		George Stevens	Do.
	11				

(300.) EUTÆNIA PHENAX Cope.

Cope, Proc. Acad. Nat. Sci., 1868, 134.

RESERVE SERIES.

7079		Orizaba, Mexico		F. Sumichrast	Alcoholic.

(301.) EUTÆNIA SCALARIS Cope.

Cope, Proc. Acad. Nat. Sci., 1860, 369.

RESERVE SERIES.

7076	3	Alpine region of Mexico.		F. Sumichrast	Alcoholic.

(302.) EUTÆNIA SUMICHRASTI Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1866, 306.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
7078	1	Alpine Mexico		F. Sumichrast	Alcoholic.

(303.) STORERIA OCCIPITOMACULATA Storer.

Baird & Girard, Cat. N. A. Serp., 1853, 137.

RESERVE SERIES.

1943	2	Westport, N. Y	— —, 1847	Prof. S. F. Baird	Alcoholic.
1939	1	Madrid, N. Y		E. A. Dayton	Do.
7284	2	Southern Illinois		R. Kennicott	Do.
5369	1	Moose River, Mont		C. Drexler	Do.
6473	1	Madison, Ohio			Do.
2151	1	Yellow Creek, Ohio	— —, 1853	Prof. S. F. Baird	Do.
2133	3	Red River, Tex		R. Kennicott	Do.
4651	1	Kansas	July 16, 1859	Capt. J. H. Simpson, U. S. A.	Do.
2144	2	Anderson, S. C		Mrs. M. E. Daniel	Do.
6473	1	Somerville, N. C			Do.
7280	1	Upper Wisconsin		R. Kennicott	Do.
7281	1	Racine, Wis		Dr. P. R. Hoy	Do.
1938	1	Pittsburgh, Pa			Do.
2147	1	Society Hill, N. C		M. A. Curtis	Do.
2138	1	Gloucester, Va			Do.
1937	1	Centreville, Md			Do.
1912	1	Georgia		S. Mann	Do.
1935	1	Portland, Me		Professor Caldwell	Do.
1964	1	Near Mammoth Cave, Ken.		Dr. B. F. Shumard	Do.
2146	2	Somerville, N. C			Do.
8793	1	Augusta, Ga		William Phillips	Do.
8775	1	Belleville, Ill	Sept. —, 1874	Dr. A. Reuss	Do.
9948	1	Northern Illinois		R. Kennicott	Do.
10715	1	Baraboo, Wis	Oct. —, 1880	J. Wood	Do.
10088	1	Hughes, Ohio	Apr. —, 1879	R. T. Shepherd	Do.
10089	1	....do	Apr. —, 1879	....do	Do.
12022	3	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
	35				

GENERAL SERIES.

8772	1	Belleville, Ill	Sept. —, 1874	Dr. A. Reuss	Alcoholic.
8776	2	....do	Sept. —, 1874	....do	Do.
8990	5	....do	Sept. —, 1874	....do	Do.
9140	1	Kingston, N. C		J. W. Milner	Do.
9142	1	(?)			Do.
8973	1	(?)			Do.
2146	1	Summerville, N. C		J. C. McNair	Do.
1917	2	Anderson, N. C			Do.
	14				

(304.) STORERIA DEKAYI Holbrook.

Baird & Girard, Cat. N. A. Serp., 1853, 135.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1858	2	Racine, Wis		Dr. P. R. Hoy	Alc. ty
7278	3	Saint Louis, Mo		Dr. Geo. Engelmann	Alcoh
6388	2	Chicago, Ill			Do
2216	4	Aux Plains, Ill		R. Kennicott	Do
4918	2	Eastport, Me			Do
1957	1	Columbus, Ohio		Prof. L. Lesquereux	Do
1947	1	Highland Co., Ohio			Do
6474	1	Madison, Ohio			Do
2230	1	Mississippi			Do
2226	2	Monticello, Miss		Miss H. Tunnison	Do
2215	1	Savina, Canada		Prof. S. F. Baird	Do
4986	2	St. Catherine's, Can		Dr. D. W. Beadle	Do
1949	1	Washington, D. C		Prof. S. F. Baird	Do
2222	1	Pensacola, Fla		Dr. W. A. Hammond, U. S. A.	Do
4653	1	Kansas			Do
2210	1	Tyree Springs, Tenn		Dr. Owen	Do
1945	2	Pittsburgh, Pa		G. W. Fahnestock	Do
5565	1	Xalapa, Mexico			Do
2095	1	Brazos River, Tex		Dr. B. F. Shumard	Do
7279	1	Matamoras, Mexico		Lt. B. Couch, U. S. A	Do
427	1	New York			Do
2136	1	Lebanon, Ind		S. B. Davis	Do
1944	1	Mount Auburn, Mass		Dr. C. Girard	Do
5199	1	Grand Couteau, La			Do
4814	1	Southern Illinois		R. Kennicott	Do
1860	2	Framingham, Mass		Capt. S. Van Vliet, U. S. A.	Do
8983	3	Kinston, N. C		J. W. Milner	Do
8939	1	Orizaba, Mexico		Prof. F. Sumichrast	Do
8951	2	Ferry Landing, Va	May 29, 1875	H. W. Welsher	Do
4900	1	Washington, D. C		Dr. W. Stimpson	Do
10654	1	Wheatland, Ind	April —, 1881	Robert Ridgway	Do
10211	2	St. James Parish, La	May —, 1879	O. de la Peichardière	Do
12028	8	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do
	56				

GENERAL SERIES.

10087	1	Hughes, Ohio	April —, 1879	R. T. Shepherd	Alcoho
10220	2	Statesville, N. C	June —, 1879	A. L. Barringer	Do.
10665	1	Monroe, Ohio	Mar. 12, 1880	R. T. Shepherd	Do.
10653	1	....do	April —, 1881	Robert Ridgway	Do.
10655	1	Wheatland, Ind	April —, 1881	....do	Do.
10664	1	....do	Mar. 12, 1880	R. T. Shepherd	Do.
10666	1	Southern States	Mar. 12, 1880	....do	Do.
9579	1	Belleville, Ill			Do.
8770	1	(?)	Sept. —, 1874	Dr. A. Reuss	Do.
9137	1	Saint Louis, Mo			Do.
7278	1	New Orleans, La		Dr. Geo. Englemann	Do.
4798	1	(?)			Do.
1859	1	Matamoras, Mexico		Lt. B. Couch, U. S. A.	Do.
2217	1	Mississippi		Col. B. L. C. Wailes.	Do.
	15				

13.) TROPIDONOTUS VALIDUS CELÆNO (Kennicott) Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1860, 341.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
6	Cape St. Lucas, Cal.	.....	John Xantus.....	Alcoholic.

TROPIDONOTUS VALIDUS TEPHROPLEURA (Kennicott) Yarrow.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1860, 341.

RESERVE SERIES.

5	La Paz, Cal	Feb. —, 1881	L. Belding.....	

(316.) TROPIDONOTUS COMPRESSICAUDUS Kennicott.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1860, 335.

RESERVE SERIES.

1	Tampa Bay, Fla....	.....	David Welsh	Alc. type.

(317.) TROPIDONOTUS USTUS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1860, 340.

RESERVE SERIES.

1	Charlotte Harbor, Fla.	.....	E. B. Baker	Alc. type.

(318.) TROPIDONOTUS FASCIATUS Linn.

Baird & Girard, Cat. N. A. Serp., 1853, 39.

RESERVE SERIES.

1	Charleston, S. C	.....	Dr. S. B. Barker	Alc. type.
1	Grand Couteau, La .	.....	.....	Do.
1	....do	.....	.....	Do.
1	....do	.....	.....	Do.
1	Prairie Mer Rouge, La.	.....	J. Potts.....	Do.
1	New Orleans, La	—— —, 1876	Prof. D. S. Jordan ..	Do.
2	Palatka, Fla	.....	T. Glover	Do.
1	Liberty County, Ga .	.....	Dr. W. L. Jones....	Head, alc.
1	New Berne, N. C	.....	.....	Alcoholic.
1	Wilmington, N. C...	.....	.....	Do.
1	Clear Water, Fla ...	July 14, 1879	S. T. Walker.....	Do.
1	....do	July 14, 1879	....do	Do.
1	Wheatland, Ind	Apr. —, 1881	R. Ridgway	Do.
1	Gainesville, Fla	—— —, 1880	James Bell	Do.
1	Ferry Landing, Va	May 29, 1875	H. W. Welsher	Do.
1	Fort Kearney, Nebr .	.....	C. McCarthy	Do.
17				

(310.) TROPIDONOTUS LEBERIS Linn.

Baird & Girard, Cat. N. A. Serp., 1853. 45.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1394	1	Carlisle, Pa	—— —, 1847	Prof. S. F. Baird	Alc. type
1492	1	Foxburg, Pa		R. Kennicott	Do.
1385	1	Root River, Wis	—— —, 1853	Prof. S. F. Baird	Do.
4862	1	Highland Co., Ohio		Dr. George Suckley, U. S. A.	Do.
4892	1	Georgia			Do.
1388	1	Knoxville, Tenn		Prof. J. B. Mitchell	Do.
1380	1	Anderson, S. C		Mrs. M. E. Daniel	Do.
4740	1	Washington, D. C			Do.
1401	1	Owassa, Tex	—— —, 1853		Do.
8948	1	Baltimore, Md		Dr. E. Cones, U. S. A.	Do.
8959	1	Kinston, N. C		J. W. Milner	Do.
9106	1	Marietta, Ga			Do.
4829½	1	Brookeville, Ind		Dr. R. Haymond	Do.
9332	2				Do.
10722	1	Livingston Co., N. Y.	Aug. —, 1880	S. C. Brown	Do.
10322	1	Arlington, Va	July 1, 1879	William Palmer	Do.
10081	1	....do	Apr. 28, 1879	....do	Do.
10095	1	....do	May 5, 1879	....do	Do.
1403	2	Foxburg, Pa	—— —, 1848	Prof. S. P. Baird	Do.
11464	1	Washington, D. C		George Shoemaker	Do.
	22				

GENERAL SERIES.

10052	1	Arlington, Va			Alcoholic.

(311.) TROPIDONOTUS RIGIDUS Say.

Baird & Girard, Cat. N. A. Serp., 1853, 46.

RESERVE SERIES.

7215	1	Southern States		Rev. J. S. Morris	Alcoholic.
1387	1	Georgetown, S. C	—— —, 1855	Weston	Do.
1379	1	Riceboro', Ga		Dr. W. L. Jones	Do.
	3				

(312.) TROPIDONOTUS VALIDUS VALIDUS (Kennicott) Cope.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1860, 334.

RESERVE SERIES.

4650	1	Rabeh Valley, Utah		Capt. J. H. Simpson, U. S. A.	Alcoholic.
4683	4	Cape St. Lucas, Lower Cal.		John Xantus	Do.
1309	1	Durango, Mexico		Dr. Thos. H. Webb	Do.
	6				

(3.) TROPIDONOTUS VALIDUS CELÆNO (Kennicott) Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1860, 341.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
6	Cape St. Lucas, Cal.	.....	John Xantus.....	Alcoholic.

ROPIDONOTUS VALIDUS TEPHROPLEURA (Kennicott) Yarrow.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1860, 341.

RESERVE SERIES.

5	La Paz, Cal	Feb. —, 1881	L. Belding.....	

(316.) TROPIDONOTUS COMPRESSICAUDUS Kennicott.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1860, 335.

RESERVE SERIES.

1	Tampa Bay, Fla....	.....	David Welsh	Alc. type.

(317.) TROPIDONOTUS USTUS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1860, 340.

RESERVE SERIES.

1	Charlotte Harbor, Fla.	.....	E. B. Baker	Alc. type.

(318.) TROPIDONOTUS FASCIATUS Linn.

Baird & Girard, Cat. N. A. Serp., 1853, 39.

RESERVE SERIES.

1	Charleston, S. C	.....	Dr. S. B. Barker	Alc. type.
1	Grand Couteau, La .	.....	.....	Do.
1	....do	.....	.....	Do.
1	....do	.....	.....	Do.
1	Prairie Mer Rouge, La.	.....	J. Potts.....	Do.
1	New Orleans, La	—— —, 1876	Prof. D. S. Jordan ..	Do.
2	Palatka, Fla	.....	T. Glover	Do.
1	Liberty County, Ga.	.....	Dr. W. L. Jones....	Head, alc.
1	New Berne, N. C....	.....	.....	Alcoholic.
1	Wilmington, N. C...	.....	.....	Do.
1	Clear Water, Fla	July 14, 1879	S. T. Walker.....	Do.
1	....do	July 14, 1879	....do	Do.
1	Wheatland, Ind	Apr. —, 1881	R. Ridgway	Do.
1	Gainesville, Fla	—— —, 1880	James Bell	Do.
1	Ferry Landing, Va	May 29, 1875	H. W. Welsher	Do.
1	Fort Kearney, Nebr.	.....	C. McCarthy	Do.
17				

(318.) TROPIDONOTUS FASCIATUS Linn—Continued.

Baird & Girard, Cat. N. A. Serp., 1853, 39.

GENERAL SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
11992	1	Georgiana, Fla	.....	William Wittfield	Alcoholic.
11054	2	Gainesville, Fla	Apr. 22, 1881	James Bell	Do.
	3				

(319.) TROPIDONOTUS SIPEDON SIPEDON (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 38.

RESERVE SERIES.

1075	1	Westport, N. Y	.....	Prof. S. F. Baird	Alc. type.
1100	1	New Orleans, La	.....	Prof. E. B. Andrews	Do.
7817	2	Washington, D. C	.....	Prof. S. F. Baird	Do.
5216	1	Northern Alabama	.....	W. M. Stewart	Do.
4734	1	Micanopy, Fla	.....	Dr. J. H. Bean	Do.
4776	1	Fort Riley, Kans	.....	H. Brandt	Do.
1086	2	New Harmony, Ind	.....	Col. B. C. L. Wailes	Do.
5232	1	Neosho Falls, Kans	.....	B. F. Coss	Do.
1091	2	Poland County, Ohio	—— —, 1853	Prof. S. F. Baird	Do.
1064	6	Richland Co., Ohio	.....	Dr. P. R. Hoy	Do.
1107	3	Columbus, Ohio	.....	.....	Do.
1389	1	Nebraska	.....	W. S. Wood	Do.
1220	1	Norfolk, Va	.....	Dr. F. V. Hayden	Do.
1696	1	Calcasieu Pass, La	.....	G. Wurdemann	Do.
1108	1	Salem, N. C	.....	R. Kennicott	Do.
1637	1	Southern Illinois	.....	....do	Do.
1323	3	Fort Smith, Ark	.....	Lieut. A. W. Whipple, U. S. A.	Do.
1079	1	Framingham, Mass	.....	Prof. S. F. Baird	Do.
1110	2	Northeast Wisconsin	.....	A. C. Barry	Do.
1111	1	Cat Island, Ga	.....	G. Wurdemann	Do.
1092	2	Mississippi	—— —, 1853	Prof. S. F. Baird	Do.
1115	2	Tyree Springs, Tenn	.....	Prof. R. Owen	Do.
1072	2	Racine, Wis	—— —, 1853	Prof. S. F. Baird	Do.
8789	1	Augusta, Ga	.....	William Phillips	Do.
8785	1	....do	.....	....do	Do.
8780	3	Belleville, Ill	Sept. —, 1874	Dr. A. Reuss	Do.
8839	1	Rutherford Co., Tenn	.....	J. N. B. Scarborough	Do.
9008	1	Montgomery, Ala	July 13, 1876	Kumlien & Bean	Do.
8987	2	Kinston, N. C	.....	J. W. Milner	Do.
9111	1	Wilmington, N. C	.....	A. L. Kumlien	Do.
9123	2	Ralston River, Va	May —, 1876	Kumlien & Bean	Do.
9121	1	Milledgeville, Ga	June 4, 1876	....do	Do.
9108	1	Marietta, Ga	.....	.....	Do.
1073	5	Carlisle, Pa	.....	Prof. S. F. Baird	Do.
9697	1	Arlington, Fla	April —, 1878	G. Brown Goode	Do.
9715	1	Washington, D. C	June 11, 1878	Dr. H. C. Yarrow	Do.
10804	6	Virginia	—— —, 1881	.....	Do.
10002	1	Middletown, Conn	—— —, 1871	George Crafts	Do.
9986	1	Westfield Falls, Conn	—— —, 1876	J. H. Pillsbury	Do.
9619	1	Near Chain Bridge, Va.	April 28, 1878	Dr. T. H. Bean	Do.
11414	1	Virginia	Sept. —, 1881	.....	Do.
11432	1	Potomac River, Georgetown, D. C.	.....	George Shoemaker	Do.
9626	1	Arlington, Va	—— —, 1877	William Palmer	Cast.
9747	1	Four-mile Run, Va	—— —, 1878	Dr. T. H. Bean	Do.
10054	1	Washington, D. C	—— —, 1878	Dr. R. Hessel	Do.
	74				

TROPIDONOTUS SIPEDON SIPEDON (Linn.) Cope—Continued.

Baird & Girard, Cat. N. A. Serp., 1853, 38.

GENERAL SERIES.

No. of spec.	Locality.	When collected	From whom received.	Nature of specimen.
1	Avoca, N. C.	April —, 1878	J. W. Milner	Alcoholic.
1	Wheatland, Ind	April —, 1881	Robert Ridgway	Do.
1	District of Columbia	May —, 1880	C. Robinson, jr	Do.
1	Nashville, Ga.	July 19, 1880	Wm. J. Taylor	Do.
1	Virginia	July 13, 1879	Henry Horan	Do.
1	Wheaton, Md	July 15, 1881	A. W. Smith	Do.
14	(?)	—— —, 1881		Do.
1	Gainesville, Fla		James Bell	Do.
1	Washington, D. C		Dep. of Agriculture	Do.
1	Racine, Wis	—— —, 1853	Prof. S. F. Baird	Do.
1	West Northfield		R. Kennicott	Do.
2	Monticello, Miss		Miss H. Tunison	Do.
1	Roanoke Co., Va		Charles Shoemaker	Do.
1	(?)			Do.
1	Augusta, Ga		William Phillips	Do.
1	Franklin Co., Tenn		J. N. B. Scarborough	Do.
3	Ferry Landing, Va	May 29, 1875	H. W. Welsher	Do.
1	Goldsborough, N. C.		A. L. Kumlein	Do.
34				

(320.) TROPIDONOTUS SIPEDON WOODHOUSEII (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 42.

RESERVE SERIES.

2	New Braunfels, Tex.		F. Lindheimer	Alcoholic.
1				Do.
1	Indianola, Tex		Col. J. D. Graham, U. S. A.	Do.
1	Rio Pecos, Tex		Capt. John Pope, U. S. A.	Do.
1	Saint Louis, Mo		Dr. Geo. Englemann	Do.
1	Antelope Creek		H. B. Mollhausen	Do.
1	Northern Illinois		R. Kennicott	Do.
1	Mississippi		Col. B. C. L. Wailes	Do.
1	Forth Smith, Ark		Lieut. A. W. Whipple, U. S. A.	Do.
1	Gainesville, Fla	Mar. —, 1881	James Bell	Do.
11				

(321.) TROPIDONOTUS SIPEDON COUCHI (Linn.) Cope.

Kennicott, Proc. Acad. Nat. Sci. Phila., 1860, 335.

RESERVE SERIES.

1	Santa Caterina, Nueva Leon.		Lieut. B. Couch, U. S. A.	Alc. type.
1	San Diego, Nueva Leon.		do	Do.
2				

(322.) TROPIDONOTUS SIPEDON ERYTHROGASTER (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 40.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1346	1	Cat Island, Ga		Maj. W. H. Emory, U. S. A.	Alc. type.
1118	1	Prairie Mer Rouge, La.		Jas. Fairie	Do.
424	1	New Orleans, La			Do.
1655	1	Southern Illinois		R. Kennicott	Do.
1155	1	Charleston, S. C		Dr. S. P. Barker	Do.
1347	1	Jackson, N. C.		Fitzgerald	Do.
1344	1	Natchez, Miss			Do.
1320	1	Near 38°		Lieut. E. G. Beckwith, U. S. A.	Do.
1351	1	Saint Louis, Mo		Dr. Geo. Englemann	Do.
1841	1	Lansing, Mich		Rev. C. Fox	Do.
8308	1	Col. and Zuñi Survey	—— —, 1849	Capt. L. Sitgreaves, U. S. A.	Do. Do.
1350	1	Lake Huron		Prof. L. Agassiz	Do.
9007	1	Kinston, N. C.		H. E. Quin	Do.
9025	1	Mandeville, La	May —, 1877	G. Kohn	Do.
10758	1	Ells Sutton Beach	Apr. 17, 1881	Dr. J. A. Kite, U. S. N.	Do.
9984	1	Westfield Falls, Conn		F. D. Skul	Do.
8362	1	Kinston, N. C	May —, 1875	H. W. Welsher	Do.
12030	1	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
10732	1	Gainesville, Fla	July —, 1880	James Bell	Do.
	19				

GENERAL SERIES.

11994	1	Georgiana, Fla		William Wittfield	Alcoholic.
10763	1	(?)			Do.
10749	1	Clearwater, Fla	Aug. 26, 1879	S. T. Walker	Do.
	3				

(323.) TROPIDONOTUS TAXISPILOTUS Holbrook.

Baird & Girard, Cat. N. A. Serp., 1853, 43.

RESERVE SERIES.

1344	1	Riceborough, Ga		Dr. W. L. Jones	Alc. type.
464	1	New York			Do.
1343	1	Georgetown, D. C		Weston	Do.
10706	1	Avoca, N. C	Apr. —, 1878	J. W. Milner	Do.
8361	1	Kinston, N. C	May —, 1875	H. W. Welsher	Do.
	5				

ETERODON PLATYRHYNUS PLATYRHYNUS (Latreille) Yarrow—Continued.

Baird & Girard, Cat. N. A. Serp., 1853, 51.

GENERAL SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2	Nebraska		S. T. Walker	Alcoholic.
1	Fort Ripley, Minn		George Stevens	Do.
2	Quasquiton, Iowa		E. C. Bidwell	Do.
1	Mt. Carmel, Ill	June —, 1875	Samuel Turner	Do.
2	Clark County, Va			Do.
5	Kemper Co., Miss		D. C. Lloyd	Do.
1	(?)		C. B. Adams	Do.
3	Anderson, S. C			Do.
2	Delaware Co., Iowa	—— —, 1853	B. F. Odell	Do.
1	Tarborough, N. C		J. L. Bridger	Do.
1	New Berne, N. C		Capt. Wm. Holden	Do.
1	Rappahannock Riv., Va.		Capt. Palmer	Do.
1	(?)			Do.
2	Belleville, Ill	Sept. —, 1874	Dr. A. Reuss	Do.
1	....do	Sept. —, 1874	....do	Do.
44				

3.) HETERODON PLATYRHINUS ATMODES (Latreille) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 57.

RESERVE SERIES.

1	Charleston, S. C		Dr. S. B. Barker	Alcoholic.
2	Somerville, N. C	—— —, 1854	J. C. McNair	Do.
1	Kinston, N. C		J. W. Milner	Do.
1	Brookville, Iowa		Dr. W. A. Hammond, U. S. A.	Do.
1	St. John's River, Fla.	—— —, 1874	G. Brown Goode	Do.
1	Sonora, Mexico		Col. J. D. Graham, U. S. A.	Do.
1	Arlington, Fla		G. Brown Goode	Do.
1	Yellowstone River	—— —, 1856	Lieut. G. Warren, U. S. A.	Do.
9				

GENERAL SERIES.

1	Clear Water, Fla	—— —, 1879	S. T. Walker	Alcoholic.

(327.) HETERODON PLATYRHYNUS PLATYRHYNUS (Latreille) Yarrow.

Baird & Girard, Cat. N. A. Serp., 1853, 51.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
426	1	Virginia		Dr. C. B. R. Kennerly	Alc. type
1162	1	Carlisle, Pa		Prof. S. F. Baird	Do.
8027	1	Vineland, N. J		Mrs. Mary Treat	Do.
5036	1	Micanopy, Fla		Dr. T. H. Bean	Do.
1160	1	Calcasieu Pass, La		G. Wurdemann	Do.
1201	1	Mississippi		Dr. B. F. Shumard	Do.
1199	1	Charleston, S. C		Prof. R. Owen	Do.
6066	1	Fort Riley, Kans		Dr. Jarvis, U. S. A.	Do.
1189	1	Tyree Springs, Tenn.		Prof. R. Owen	Do.
5480	1	Independence, Mo		Dr. J. G. Cooper	Do.
1264	1	Fort Snelling, Minn.		Dr. Geo. Suckley, U. S. A.	Do.
7265	1	Eutaw, Ala			Do.
8765	3	Belleville, Ill	Sept. —, 1874	Dr. A. Reuss	Do.
4815	1	Southern Illinois		R. Kennicott	Do.
7256	1	Washington, D. C			Do.
1266	1	San Pedro, Tex		Dr. S. W. Woodhouse	Do.
1130	1	Marietta, Ohio		Prof. A. Winchell	Do.
1273	1	Upper Missouri		Col. J. D. Vaughan	Do.
1244	1	Texas			Do.
1210	1	Charleston, S. C			Do.
4769	2	Fort Riley, Kans		H. Brandt	Do.
6446	1	....do			Do.
9117	1	Wilmington, N. C			Do.
10691	1	Gainesville, Fla	—— —, 1880	James Bell	Do.
10599	1	Nashville, Tenn	Aug. 3, 1880	William J. Taylor	Do.
10327	2	Laurel, Md	July 1, 1879	George Marshall	Do.
10477	1	Gainesville, Fla	July —, 1880	James Bell	Do.
11426	11	Laurel, Md			Eggs, alc.
9756	1	....do	June 3, 1878	Henry Marshall	Alcoholic.
12042	3	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
8355	3	Goldsborough, N. C.		H. W. Welsher	Do.
9623	1	Statesville, N. C	Nov. —, 1877	A. L. Barringer	Cast.
9756	1	Laurel, Md	June 3, 1881	H. Marshall	Do.
	52				

GENERAL SERIES.

12044	1	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Alcoholic.
12043	1	....do	Nov. —, 1881	....do	Do.
10452	1	Laurel, Md	June —, 1880	Henry Marshall	Do.
10755	1	(?)			Do.
10327	1	Laurel, Md	July 1, 1879	George Marshall	Do.
10675	1	Arlington, Fla	—— —, 1879	F. C. Goode	Do.
10227	1	Clearwater, Fla	June 1, 1879	S. T. Walker	Do.
10452	1	Laurel, Md	June —, 1880	Henry Marshall	Do.
10723	1	(?)			Do.
11408	1	(?)			Do.
10080	1	Arlington, Va	April 28, 1879	William Palmer	Do.
9482	1	(?)			Do.
10863	1	(?)	Sept. 15, 1872	Dr. Jarvis, U. S. A.	Do.
10534	1	Gainesville, Fla	—— —, 1881	James Bell	Do.
1087	1	Clark Co., Va			Do.
1207	3	Rock Island, Ill		J. B. Sargent	Do.

HETERODON PLATYRHYNUS PLATYRHYNUS (Latreille) Yarrow—Continued.

Baird & Girard, Cat. N. A. Serp., 1853, 51.

GENERAL SERIES.

ne r.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
5	2	Nebraska		S. T. Walker	Alcoholic.
7	1	Fort Ripley, Minn		George Stevens	Do.
4	2	Quasquiton, Iowa		E. C. Bidwell	Do.
5	1	Mt. Carmel, Ill	June —, 1875	Samuel Turner	Do.
7	2	Clark County, Va			Do.
3	5	Kemper Co., Miss		D. C. Lloyd	Do.
7	1	(?)		C. B. Adams	Do.
3	3	Anderson, S. C			Do.
3	2	Delaware Co., Iowa	—— —, 1853	B. F. Odell	Do.
4	1	Tarborough, N. C		J. L. Bridger	Do.
2	1	New Berne, N. C		Capt. Wm. Holden	Do.
0	1	Rappahannock Riv., Va.		Capt. Palmer	Do.
1	1	(?)			Do.
3	2	Belleville, Ill	Sept. —, 1874	Dr. A. Reuss	Do.
1	1	....do	Sept. —, 1874	....do	Do.
	44				

28.) HETERODON PLATYRHINUS ATMODES (Latreille) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 57.

RESERVE SERIES.

3	1	Charleston, S. C		Dr. S. B. Barker	Alcoholic.
4	2	Somerville, N. C	—— —, 1854	J. C. McNair	Do.
4	1	Kinston, N. C		J. W. Milner	Do.
5	1	Brookville, Iowa		Dr. W. A. Hammond, U. S. A.	Do.
3	1	St. John's River, Fla.	—— —, 1874	G. Brown Goode	Do.
0	1	Sonora, Mexico		Col. J. D. Graham, U. S. A.	Do.
0	1	Arlington, Fla		G. Brown Goode	Do.
5	1	Yellowstone River	—— —, 1856	Lieut. G. Warren, U. S. A.	Do.
	9				

GENERAL SERIES.

8	1	Clear Water, Fla	—— —, 1879	S. T. Walker	Alcoholic.

(329.) HETERODON PLATRYRHINUS NIGER (Latreille) Yarrow.

Troost, Ann. Lyc. Nat. Hist., N. Y., 1836, iii, 186.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1171	1	Kemper Creek, Miss.	.....	D. C. Lloyd	Alc. type.
1172	1	Carlisle, Pa.....	.....	Prof. S. F. Baird ...	Do.
8766	2	Belleville, Ill	Sept. —, 1874	Dr. A. Reuss	Do.
7261	1	Abbeville, S. C.....	.....	Dr. J. B. Barratt....	Do.
1168	1	Pensacola, Fla.....	—— —, 1857	Dr. Wm. A. Hammond, U. S. A.	Do. Do.
1206	1	Eutaw, Ala.....	.....	Prof. A. Winchell ..	Do.
1165	1	Liberty Co., Ga.....	.....	Dr. W. L. Jones	Do.
1311	1	Rio Pecos, Tex.....	.....	Capt. John Pope, U. S. A.	Do.
1186	1	Anderson, S. C.....	.....	Mrs. M. E. Daniel...	Do.
9105	1	Fort Macon, N. C ...	.....	Dr. Weyrick	Do.
9112	1	Wilmington, N. C...	.....	.....	Do.
12041	1	Mount Carmel, Ill..	Nov. —, 1881	L. M. Turner.....	Do.
9031	1	Statesville, N. C	June —, 1877	A. L. Barringer.....	Cast.
	14				

GENERAL SERIES.

9031	1	Statesville, N. C....	June —, 1877	A. L. Barringer.....	Alcoholic.
9568	1	....do.....	Nov. —, 1877	....do	Do.
	2				

(330.) HETERODON SIMUS SIMUS (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 59.

RESERVE SERIES.

1197	1	Abbeville, S. C	.....	Dr. J. B. Barratt...	Alcoholic.
4834	2	Brookville, Ind	.....	Dr. R. Haymond ...	Do.
	3				

(331.) HETERODON SIMUS NASICUS (Linn.) Cope.

Baird & Girard, Cat. N. A. Serp., 1853, 61.

RESERVE SERIES.

1285	1	Red River, Ark	.....	Capt. R. B. Marcy, U. S. A.	Alc. type.
1253	1	... do.....	—— —, 1855	Maj. W. H. Emory, U. S. A.	Do.
1249	1	Eagle Pass, Tex.....	.....	A. Schott	Do.
5083	3	Wheelock, Tex	.....	F. Kellogg	Do.
4961	1	Pecos River, Texas	.....	Capt. John Pope, U. S. A.	Do.
1278	1	Mills River, Mont. .	.....	Dr. Geo. Suckley, U. S. A.	Do.
8025	1	Fort Whipple, Ariz..	.....	Dr. E. Palmer	Do.
8412	1	Santa Fé, N. Mex ...	Sept. —, 1874	Dr. H. C. Yarrow ..	Do.

31.) HETERODON SIMUS NASICUS (Linn.) Cope—Continued.

Baird & Girard, Cat. N. A. Serp., 1853, 61.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	Santa Fé, N. Mex		Howard	Alc. type.
1	Fort Union, N. Mex.	—— —, 1875	Peter Connell	Do.
1	Fort Riley, Kans		Dr. B. J. D. Irwin, U. S. A.	Do.
1	Upper Missouri			Do.
1	New Mexico	Aug. —, 1874	Dr. O. Loew	Do.
1	Big Windy R., Mont.	—— —, 1874	Dr. E. Coues, U.S.A.	Do.
1	Fort Lyon, Col		Dr. E. Palmer	Do.
1	Cobre Mines		Col. J. D. Graham, U. S. A.	Do.
2	Yellowstone River	Aug. —, 1873	Prof. J. A. Allen	Do.
1	Montana		Dr. E. Coues, U.S. A.	Do.
21				

GENERAL SERIES.

2	(?)			Alcoholic.
2	(?)			
2	Nebraska		Dr. Geo. Suckley, U. S. A.	Do.
1	Pecos River, Texas		Maj. W. H. Emory, U. S. A.	Do.
1	(?)			Do.
1	California		Dr. Wm. Gambel	Do.
1	Nebraska			Do.
1	Platte River		Lieut. F. T. Bryan, U. S. A.	Do.
3	....do	—— —, 1856	....do	Do.
1	Pole Creek		Dr. W.A. Hammond, U. S. A.	Do.
1	....do		....do	Do.
1	Sand Hills		Dr. F. V. Hayden	Do.
1	Platte River		Dr. W.A. Hammond, U. S. A.	Do.
1	South Platte		W. S. Wood	Do.
1	San Ildefonso, N. M.	Aug. —, 1874	Cope and Yarrow	Do.
1	Fort Riley, Kans		H. Brandt	Do.
21				

.) HETERODON SIMUS KENNERLYI (Linn) Coues & Yarrow.

& Yarrow, Herp. Dak. & Mont., Bull. U. S. Geol. Surv., 1878, iv, 271.

RESERVE SERIES.

2	Matamoras, Mexico		Lt. B. Couch, U. S. A.	Alc. type.
1	Lower Rio Grande		A. Schott	Do.
1	Fort Stockton, Tex.		Patrick Duffy	Do.
1	Southern Arizona	—— —, 1873	H. W. Henshaw	Do.
1	....do	Oct. —, 1874	....do	Do.
1	White River Cañon, Ariz.	—— —, 1879	Dr. R. T. Burr	Do.
7				

(334.) CHARINA PLUMBEA Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 139.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4499	1	Willamette Valley, Oreg.	.....	Lieut. R. S. Williamson, U. S. A.	Alc. type.
4497	1	Presidio, Cal	.....	Lieut. W. P. Trowbridge, U. S. A.	Do.
8922	1	Oakland, Cal.	.....	H. Hemphill	Do.
4494	1	Fort Steilacoom, Wash.	.....	Dr. Geo. Suckley, U. S. A.	Do.
4492	1	Puget Sound, Oreg .	.....	.....	Do.
7299	1	....do	.....	.....	Do.
594	1	....do	.....	A. Campbell	Do.
9563	1	Eagle Lake, Cal	Aug. —, 1877	H. W. Henshaw	Do.
11691	1	Big Bend of Truckee, Nev.	July —, 1867	R. Ridgway	Do.
11789	1	Fresno, Cal	—— —, 1879	Gustav Eisen	Do.
9255	1	(?)	.....	Dr. C. B. R. Kennerly	Do.
4496	1	Humboldt River, Nev.	.....	Lieut. W. P. Trowbridge, U. S. A.	Do.
	12				

(335.) LICHANURA TRIVIRGATA Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1861, 304.

RESERVE SERIES.

5023	1	Cape St. Lucas, Cal.	.....	John Xantus	Alc. type.
12602	1	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
	2				

(338.) STENOSTOMA DULCE Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 142.

RESERVE SERIES.

7296	1	Between San Pedro and Comanche, Tex	.....	Col. J. D. Graham, U. S. A.	Alc. type.
4872	1	Monterey, N. Leon ..	.....	Lt. B. Couch, U.S.A.	Alcoholic.
8177	1	(?)	.....	.....	Do.
10728	1	Texas	.....	George B. Sennett .	Do.
7291	1	Near Monterey, N. Leon.	.....	.....	Do.
	5				

(339.) STENOSTOMA HUMILE Baird & Girard.

Baird & Girard, Cat. N. A. Serp., 1853, 143.

RESERVE SERIES.

9101	1	Vallicita, Cal	.....	Dr. J. L. LeConte...	Alc. type.
5222	2	Cape St. Lucas, Cal.	.....	J. Xantus	Alcoholic.
12601	1	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
	4				

(340.) SIREN LACERTINA Linn.

Holbrook, N. A. Herp., 1842, v, 101.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	Neuse River, N. C.	.....	H. W. Welsher.	Alcoholic.
1	Columbia, S. C	Mar. —, 1876	E. E. Jackson	Do.
1	Mount Carmel, Ill	July 22, 1877	Robert Ridgway	Do.
1	.....	.....	.....	Do.
4	Oakley, S. C	May 1, 1877	F. W. Hayward	Do.
1	Columbia, S. C	—— —, 1878	E. E. Jackson	Do.
1	Upson, Texas	—— —, 1880	Albert Turpe	Do.
1	....do	—— —, 1880	....do	Do.
1	Charleston, S. C	.....	Charleston Acad	Do.
2	Georgia	Feb. 1, 1861	Dr. W. L. Jones	Do.
4	Riceboro', Ga	.....	....do	Do.
1	Grand Coteau, La	Feb. 4, 1861	St. Charles Coll	Do.
4	Matamoras, Mex	.....	Lt. B. Couch, U.S.A.	Do.
1	Oakley, S. C	May 11, 1879	F. W. Hayward	Do.
24				

GENERAL SERIES.

1	(?)	.....	.....	Alcoholic.
2	Riceboro', Ga	.....	Dr. W. L. Jones	Do.
2	Matamoras	.....	Lt. B. Couch, U.S.A.	Do.
4	(?)	.....	.....	Do.
3	Georgetown, S. C	.....	Cheston	Do.
3	Prairie Mer Rouge, La.	.....	.....	Do.
1	Oakley, S. C	.....	.....	Do.
1	(?)	.....	.....	Do.
1	(?)	.....	.....	Do.
1	(?)	.....	.....	Do.
1	Oakley, S. C	Mar. 13, 1878	F. W. Hayward	Do.
1	(?)	.....	.....	Do.
1	(?)	.....	.....	Do.
1	(?)	.....	.....	Do.
1	(?)	.....	.....	Do.
1	(?)	.....	.....	Do.
1	(?)	.....	.....	Do.
1	Oakley, S. C	.....	.....	Do.
1	....do	.....	.....	Do.
1	....do	.....	.....	Do.
1	....do	.....	.....	Do.
1	....do	.....	.....	Do.
1	....do	Mar. 13, 1878	F. W. Hayward	Do.
3	....do	May —, 1879	....do	Do.
1	....do	.....	.....	Do.
1	....do	May —, 1880	F. W. Hayward	Do.
2	....do	Mar. —, 1878	....do	Do.
1	....do	Mar. 13, 1878	....do	Do.
40				

(341.) PSEUDOBRANCHUS STRIATUS Le Conte.

Holbrook, N. A. Herp., 1842, v, 109.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
7010	5	.....	—— —, 1855	.....	Alcoholic.
5051	4	Georgia	Feb. 1, 1851	Dr. W. L. Jones....	Do.
7020	1	Simahmoo Bay, Wash.	.....	Dr. C. B. R. Kennerly	Do.
	10				

(342.) NECTURUS LATERALIS Say.

Holbrook, N. A. Herp., 1842, v, 111, 115.

RESERVE SERIES.

8348	2	Kinston, N. C.....	.....	Mason & Welsher..	Alcoholic.
7897	2	Grand Ecorse, Mich.	.....	J. W. Milner	Do.
8350	2	Clarkston, Mich....	.....	....do	Do.
8560	1	Manitoba	Oct. —, 1875	M. Banks	Do.
8815	1	Mount Carmel, Ill...	June —, 1875	Samuel Turner.....	Do.
9203	1	Great Lakes.....	.....	.....	Do.
9207	2	Grand Ecorse, Mich.	.....	C. M. Clark	Do.
7907	3	....do	.....	G. Clark.....	Do.
10896	1	Geneva Lake, Wis..	July 26, 1881	H. W. Welsher.....	Do.
10897	1	....do	July 26, 1881	....do	Do.
4530	2	Burlington, Vt	.....	Prof. S. F. Baird....	Do.
7041	1	Tyree Springs, Tenn.	.....	Dr. R. Owen	Do.
7007	1	Lake Superior.....	.....	D. Gunn	Do.
3967	2	Cook Co., Ill	.....	R. Kennicott	Do.
5450	1	Toledo, Ohio	—— —, 1861	Dr. Trembley	Do.
7008	2	Portage Lake	.....	Wm. Dickinson	Do.
7038	4	Grass River, Madrid, N. Y.	.....	.....	Do.
7061	3	Cleveland, Ohio	.....	Dr. J. P. Kirtland..	Do.
7057	2	Detroit, Mich	.....	Capt. Gunnison, U. S. A.	Do.
7042	1	Tuscumbia, Ala	.....	.....	Do.
7015	3	Tarboro', N. C	.....	J. L. Bridger.....	Do.
12071	6	Mount Carmel, Ill ..	—— —, 1881	L. M. Turner.....	Do.
	44				

GENERAL SERIES.

12079	1	Mount Carmel, Ill ..	Nov. —, 1881	L. M. Turner.....	Alcoholic.
7059	1	Saint Louis, Mo	.....	Dr. Geo. Englemann	Do.
3967	1	Cook Co., Ill.	.....	R. Kennicott.....	Do.
7060	1	Root River, Racine, Wis.	.....	Prof. S. F. Baird....	Do.
7041	1	Tyree Springs, Tenn.	.....	Prof. R. Owen.....	Do.
7057	1	Detroit, Mich	.....	Capt. Gunnison, U. S. A.	Do.
7054	1	Lake Michigan, Mich	.....	Rev. A. C. Barry....	Do.
7006	1	Isle Royal.....	.....	Maj. Whittlesey....	Do.
7058	1	Columbus, Ohio	.....	Dr. Wormley.....	Do.
4058	1	Arkansas River, Ark.	.....	Dr. B. F. Shumard..	Do.
7053	1	Meadville, Pa	.....	.....	Do.
7141	1	(?)	.....	.....	Do.
7061	1	Cleveland, Ohio	.....	Dr. J. P. Kirtland ..	Do.
7049	1	Columbus, Ohio	.....	Prof. L. Lesquereux	Do.
	14				

(343.) NECTURUS PUNCTATUS Gibbes.

Gibbes, Bost. Jour. Nat. Hist., 1853, vi, 369.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
11813	1	S. Santee River, S. C.	—— —, 1850	Dr. L. R. Gibbes	Alc. type.
12594	2	Wilmington, N. C.	Mar. —, 1882	Donald McRae	Alcoholic.
	3				

(344.) AMPHIUMA MEANS Linn.

Holbrook, N. A. Herp., 1842, v, 89.

RESERVE SERIES.

9707	1	Arlington, Fla	—— —, 1878	G. Brown Goode	Alcoholic.
10011	1	.....	.....	.....	Do.
10891	1	Oakley, S. C	.....	H. L. Barker	Do.
10899	1	.....	.....	.....	Do.
6300	1	Fort Jessup, Ark	.....	.....	Do
4533	1	Tarboro', N. C	.....	J. L. Bridger	Do.
7064	1	Charleston, S. C	.....	Dr. B. F. Shumard	Do.
7013	10	Biloxi, Miss	.....	C. Bellman	Do.
7065	2	Riceboro', Ga	.....	Dr. W. L. Jones	Do.
	19				

GENERAL SERIES.

7062	1	Charleston, S. C	.....	Dr. S. B. Barker	Alcoholic.
7048	2	(?)	.....	C. B. Adams	Do.
	3				

(345.) MURÆNOPSIS TRIDACTYLUS Cuvier.

Holbrook, N. A. Herp., 1842, v, 93.

RESERVE SERIES.

4534	2	Prairie Mer Rouge, La.	.....	Jas. Fairie	Alcoholic.
10865	1	Columbus, Miss	.....	Spillman	.....
	3				

(341.) PSEUDOBRANCHUS STRIATUS Le Co

Holbrook, N. A. Herp., 1842, v, 109.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom rece
7010	5	.....	—— —, 1855	.....
5051	4	Georgia	Feb. 1, 1851	Dr. W. L. Jone
7020	1	Simahmoo Bay, Wash.	.....	Dr. C. B. R. Ken
	10			

(342.) NECTURUS LATERALIS Say.

Holbrook, N. A. Herp., 1842, v, 111, 115.

RESERVE SERIES.

8348	2	Kinston, N. C.	.....	Mason & W
7897	2	Grand Ecorse, Mich.	.....	J. W. Milne
8350	2	Clarkston, Mich	.....	....do ....
8560	1	Manitoba	Oct. —, 1875	M. Banks
8815	1	Mount Carmel, Ill...	June —, 1875	Samuel T
9203	1	Great Lakes..	.....	.....
9207	2	Grand Ecorse, Mich.	.....	C. M. Cla
7907	3	....do	.....	G. Clar
10896	1	Geneva Lake, Wis..	July 26, 1881	H. W. \
10897	1	....do	July 26, 1881	....do
4530	2	Burlington, Vt	.....	Prof. S
7041	1	Tyree Springs, Tenn.	....	Dr. R
7007	1	Lake Superior.....	.....	D. G
3967	2	Cook Co., Ill	.....	R. K
5450	1	Toledo, Ohio	—— —, 1861	Dr.
7008	2	Portage Lake	.....	Wm. A
7038	4	Grass River, Madrid, N. Y.	.....	...
7061	3	Cleveland, Ohio	.....	Dr
7057	2	Detroit, Mich	.....	C
7042	1	Tuscumbia, Ala	.....	
7015	3	Tarboro', N. C	.....	
12071	6	Mount Carmel, Ill ..	—— —, 1881	
	44			

GENERAL SERIE.

12079	1	Mount Carmel, Ill ..	Nov. —, 1	
7059	1	Saint Louis, Mo	.....	
7967	1	Cook Co., Ill.	.....	
7060	1	Root River, Racine, Wis.	.....	
7041	1	Tyree Springs, Tenn.	.....	
7057	1	Detroit, Mich	.....	
7054	1	Lake Michigan, Mich		
7006	1	Isle Royal.....	.....	
7058	1	Columbus, Ohio	.....	
4058	1	Arkansas River, Ark.		
7053	1	Meadville, Pa	.....	
7141	1	(?)	.....	
7061	1	Cleveland, Ohio	.....	
7049	1	Columbus, Ohio	.....	
	14			

(349.) AMBLYSTOMA OPACUM Gravenhorst.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 173.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
8347	1	Kinston, N. C	—— —, 1873	J. W. Milner	Alcoholic.
5268	3	Riceboro', Ga		Dr. W. L. Jones	Do.
4877	2	Norfolk, Va			Do.
9191	2	Kinston, N. C	—— —, 1873	J. W. Milner	Do.
9289	2	Moulton, Ala			Do.
4100	3	Southern Illinois		R. Kennicott	Do.
4087	8	Prairie Mer Rouge, La.		James Fairie	Do.
10892	6	Wheatland, Ind	Apr. —, 1881	Robert Ridgway	Do.
12051	10	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
4085	5	Lancaster, Ohio		Prof. L. Lesquereux	Do.
8979	2	Kinston, N. C	—— —, 1873	J. W. Milner	Do.
3981	1	New York			Do.
4920	1	Florida		T. Glover	Do.
3954	2	Texas		Prof. E. B. Andrews	Do.
12598	4	St. Jerome Creek, Md	Feb. —, 1882	E. N. Walker	Do.
	52				

GENERAL SERIES.

3751	3	Gloucester, Va		C. Mann	Alcoholic.
4087	85	Prairie Mer Rouge, La.		Jas. Fairie	Do.
	88				

(350.) AMBLYSTOMA PUNCTATUM Linn.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 175.

RESERVE SERIES.

4730	1	Whitfield Co., Ga		A. Gephart	Alcoholic.
5270	4	Riceboro', Ga		Dr. W. L. Jones	Do.
8769	3	Belleville, Ill	Sept. —, 1874	Dr. A. Reuss	Do.
9188	1	Chicago, Ill		Sweeny	Do.
4399	1	Between Indianola and El Paso, Tex.		Col. J. D. Graham, U. S. A.	Do.
4912	1				Do.
9190	2	Halifax, Nova Scotia		Dr. Gilbert	Do.
10893	1	Wheatland, Ind	Apr. —, 1881	Robert Ridgway	Do.
3926	2	Carlisle, Pa		Prof. S. F. Baird	Do.
3950	3	Abbeville, S. C		Dr. J. B. Barratt	Do.
3927	5	Gloucester, Va			Do.
3930	2	Allegany Co., N. Y		Dr. Stevens	Do.
4098	10	Cook County, Ill		R. Kennicott	Do.
4084	2	Grand Coteau, La		J. Varden	Do.
4077	2	Fort Dawson, Red River, Ark.		Dr. L. A. Edwards, U. S. A.	Do.
4086	1	Virginia			Do.
3938	6	Racine, Wis		Prof. S. F. Baird	Do.
3947	8	Carlisle, Pa		do	Do.
3965	10	Prairie Mer Rouge, La.		Jas. Fairie	Do.
3966	1	Cleveland, Ohio		Dr. J. P. Kirtland	Do.
12054	1	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
	67				

(351.) AMBLYSTOMA CONSPERSUM Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 177.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
7904	30	Carlisle, Pa		Prof. S. F. Baird	Alcoholic.

(352.) AMBLYSTOMA BICOLOR Hallowell.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 178.

RESERVE SERIES.

4692	3	Beesley's Point, N. J.		Prof. S. F. Baird	Alcoholic.

(356.) AMBLYSTOMA TIGRINUM Green.

Cope, Proc. Acad. Nat. Sci., Phila, 1867, 179.

RESERVE SERIES.

3970	1	Detroit, Mich		A. Sager	Alc. type.
4692	1	Beesley's Point, N. J.		Prof. S. F. Baird	Alcoholic.
9273	1	Virginia	Sept. —, 1874		Do.
10889	1	Webster City, Iowa.	May 21, 1878	Chas. Aldrich	Do.
4097	8	Northern Illinois		R. Kennicott	Do.
4691	10	West Northfield, Ill.		do	Do.
9188	2	Chicago, Ill	Sept. 7, 1877	Sweeny	Do.
10082	1	Edgefield, S. C.	April —, 1879	S. H. Loud	Do.
9929	1	Webster City, Iowa.		Chas. Aldrich	Do.
4059	1	Fort Ripley, Minn.		Dr. J. F. Head, U. S. A	Do.
3956	1	New York			Do.
4908	1	Independence, Mo.		Dr. J. G. Cooper	Do.
3993	1	Russellville, Ky		Dr. Thos. H. Webb.	Do.
3966	2	Mississippi		Dr. B. F. Shumard	Do.
4097	3	Northern Illinois		R. Kennicott	Do.
3895	1	Saint Louis, Mo			Do.
4040	2	Lake Encinito, Chihuahua.		J. Potts	Do.
4691	6	West Northfield, Ill.		R. Kennicott	Do.
4003	6	Racine, Wis		Prof. S. F. Baird	Do.
3974	5	Columbus, Ohio		Prof. L. Lesquereux	Do.
	55				

GENERAL SERIES.

10894	1	(?)			

(354.) AMBLYSTOMA MAVORTIUM Baird.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 184.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	New Mexico		Dr. J. L. Le Conte.	Alc. type.
6	Fort Union, N. Mex.		Peter Connell	Alcoholic.
1	Nutrias, N. Mex		Dr. C. G. Newberry.	Do.
5	Bonito Cañon, Ariz		Gen. W. E. M. Arny.	Do.
1	Arizona	—— —, 1874	J. M. Rutter	Do.
1	Fort Reynolds		A. Clough	Do.
1			Lt. W. L. Carpenter, U. S. A.	Do.
1	Fort Bliss, N. Mex.		Dr. S. W. Crawford, U. S. A.	Do.
1	Fort Benton, Mo		Dr. F. V. Hayden	Do.
3	Tamaulipas, Mex		Dr. L. A. Edwards, U. S. A.	Do.
1	Mouth of Cimmaron		J. H. Clark	Do.
1	Fort Riley, Kans		Dr. W. A. Hammond, U. S. A.	Do.
1	Lower Platte		Dr. J. H. Cooper	Do.
1	Fort Laramie, Wyo.		Chas. Ruby	Do.
1	....do		....do	Do.
1	....do		....do	Do.
1	Sydney, Nebr	Feb. 10, 1876	Lt. S. W. Crawford, U. S. A.	Do.
5	Mexico			Do.
7	Dakota		C. A. K	Do.
5	Peterson, Utah	Dec. 5, 1878	F. Hirst	Do.
1	Lac Qui Parle, Minn.		S. R. Riggs	Do.
1	Fort Tejon, Cal		Dr. S. W. Woodhouse.	Do.
1	Fort Bridger, Wyo.			Do.
1	Nebraska		Lieut. Reynolds & Dr. F. V. Hayden	Do.
2	Santa Fe Creek		R. H. Kearn	Do.
2	Rock Creek		Lieut. F. T. Bryan, U. S. A.	Do.
5	Mexico		Mus. Nat., Mexico	Do.
1	North Red River			Do.
6	Utah Lake	—— —, 1882	Jordan & Gilbert	Do.
65				

GENERAL SERIES.

2	Kansas			Alcoholic.
1	Old Fort Cobb, Tex.		Dr. E. Palmer	Do.
7	Bridger's Pass, Wyo.		Lieut. F. T. Bryan, U. S. A.	Do.
1	Cheyenne Pass		Dr. E. Swift, U. S. A.	Do.
1	Fort Laramie, Wyo.		Lieut. S. Warren, U. S. A.	Do.
5	Platte Valley, Nev.		C. Drexler	Do.
4	Fort Bliss, N. Mex.		Dr. S. W. Crawford, U. S. A.	Do.
5	(?)		E. Ingersoll	Do.
1	Kansas		Dr. E. Palmer	Do.
27				

(355.) AMBLYSTOMA MAVORTIUM CALIFORNIENSE (Baird) Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 187.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4081	2	Petaluma, Cal		E. Samuels	Alcoholic.

(358.) AMBLYSTOMA TRISRUPTUM Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 194.

RESERVE SERIES.

4068	1	New Mexico		John Potts	Alc. type.
8457	3	South Park, Colo	June —, 1873	Dr. J. T. Rothrock	Alcoholic.
9187	3	Santa Fé, N. Mex			Do.
	7				

(359.) AMBLYSTOMA JEFFERSONIANUM JEFFERSONIANUM (Green) Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 195.

RESERVE SERIES.

3968	1	Western Pennsylvania.		Dr. J. Green	Alc. type.
3979	4	Ripley, Ohio		Dr. P. R. Hoy	Alcoholic.
3997	1	Racine, Wis		do	Do.
4690	1	St. Catherine's, Canada.		Dr. D. W. Beadle	Do.
4884	1	Mount Joy, Pa		J. Stauffer	Do.
3888	2	Burlington, Vt		L. Thompson	Do.
10830	1	Lucknow, Ont	July 15, 1881	Dr. J. H. Garnier	Do.
3877	1	Ohio		Dr. J. S. Newberry	Do.
3981	2	New York			Do.
4096	10	Southern Illinois		R. Kennicott	Do.
	24				

(360.) AMBLYSTOMA JEFFERSONIANUM LATERALE (Green) Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 197.

RESERVE SERIES.

5941	3	Near Lake Abitil, Hudson's Bay.		C. Drexler	Alcoholic.

(361.) AMBLYSTOMA JEFFERSONIANUM FUSCUM (Green) Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 197.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4022	2	St. Catherine's, Canada.	.....	Dr. D. W. Beadle ...	Alcoholic.

(362.) AMBLYSTOMA JEFFERSONIANUM PLATINEUM (Green) Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 198.

RESERVE SERIES.

8777	2	Belleville, Ill.....	Sept. —, 1874	Dr. A. Reuss	Alcoholic.
5368	1	Moose River, B. A..	.....	C. Drexler	Do.
	3				

(363.) AMBLYSTOMA MACRODACTYLUM Baird.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 198.

RESERVE SERIES.

4054	2	Puget Sound, Oreg .	.....	Dr. Geo. Suckley, U. S. A.	Alcoholic.
4042	1	Astoria, Oreg.....	.....	A. N. S., Phila.....	Do.
5962	6	Chilowyuck Lake, Oreg.	.....	Dr. C. B. R. Kennerly.	Do.
6892	2	.....	.....	.....	Do.
6878	3	.....	.....	.....	Do.
8863	2	Fort Klamath, Oreg.	Oct. 2, 1876	Willis Wittich	Do.
	16				

(364.) AMBLYSTOMA PAROTICUM Baird.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 200

RESERVE SERIES.

4708	1	Chilowyuck Lake, Oreg.	.....	A. Campbell	Alc. type.
7021	1	Puget's Sound, Oreg.	.....	Dr. C. B. R. Kennerly	Alcoholic.
11445	1	Neah Bay, Oreg	.....	J. G. Swan.....	Alcoholic.
4709	2	Puget's Sound, Oreg	.....	Dr. C. B. R. Kennerly	Do.
	5				

(365.) AMBLYSTOMA ATERRIMUM Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 201.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
5942	2	N. Rocky Mountains	.....	Hildreth	Alcoholic.

(366.) AMBLYSTOMA TENEBROSUM Baird & Girard.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 202.

RESERVE SERIES.

4710	1	Oregon	.....	Exploring Exped'n	Alc. type.
4053	1	Astoria, Oregon	.....	Lieut. W. P. Trowbridge, U. S. A.	Alcoholic.
5981	1	Chilowyuck Lake, Oreg.	.....	Dr. C. B. R. Kennerly	Do.
	3				

(369.) AMBLYSTOMA MICROSTOMUM Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1867, 206.

RESERVE SERIES.

8875	1	Mandeville, La	Nov. —, 1876	N. O. Academy	Alcoholic
8837	1	Mount Carmel, Ill ..	June —, 1875	Samuel Turner	Do.
3999	1	Saint Louis, Mo	.....	Dr. Geo. Englemann	Do.
5982	1	Chilowyuck Lake, Oreg.	.....	.....	Do.
3884	5	Prairie Mer Rouge, La.	.....	Jas. Fairie	Do.
3902	3	New Madrid, Mo	.....	R. Kennicott	Do.
4037	1	Fort Smith, Ark	.....	Dr. B. F. Shumard	Do.
11056	3	Mount Carmel, Ill ..	Nov. —, 1881	L. M. Turner	Do.
11878	8	Wheatland, Ind ...	April —, 1881	Robert Ridgway ...	Do.
3995	1	Columbus, Ohio	.....	Prof. L. Lesquereux	Do.
3949	6	New Madrid, Mo ...	.....	R. Kennicott	Do.
11050	3	Mount Carmel, Ill ..	Nov. —, 1881	L. M. Turner	Do.
	34				

(371.) BATRACHOSEPS ATTENUATUS Eschscholz.

Hallowell, Jour. Acad. Nat. Sci. Phila., 1858, 348.

RESERVE SERIES.

6890	6	California	.....	Dr. Wm. Stimpson .	Alcoholic
11801	10	Fresno, California ..	—— —, 1879	Gustav Eisen	Do.
	16				

(372.) BATRACHOSEPS NIGRIVENTRIS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1869, 98.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4009	3	California			Alcoholic.
8001	3	Monterey, Cal		Canfield	Do.
4017	6	Petaluma, Cal		E. Samuels	Do.
	12				

(373.) BATRACHOSEPS PACIFICUS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1865, 195.

RESERVE SERIES.

6733	1	Santa Barbara, Cal		Dr. Hays	Alc. type.
4006	2	San Francisco, Cal		R. D. Cutts	Alcoholic.
	3				

(374.) HEMIDACTYLIUM SCUTATUM Schlegel.

Duméril & Bibron, Erp. Gén., 1854, ix, 118.

RESERVE SERIES.

4083	1	Carlisle, Pa		Prof. S. F. Baird	Alcoholic.
4088	5	do		do	Do.
4730	1	St. Catherine's, Canada.		Dr. D. W. Beadle	Do.
	7				

(375.) PLETHODON CINEREUS CINEREUS (Green) Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1869, 100.

RESERVE SERIES.

4885	1	Mount Joy, Pa		J. Stauffer	Alcoholic.
4888	1	Brookville, Ind			Do.
5963	4	Hudson's Bay Terr		C. Drexler	Do.
4729	2	St. Catherine's, Canada.		Dr. D. W. Beadle	Do.
3790	10	Carlisle, Pa		Prof. S. F. Baird	Do.
4844	1	Brookville, Ind		Dr. R. Haymond	Do.
12610	1	Potomac River, D.C.	Apr. —, 1882	Edwin Prindle	Do.
	20				

(376.) PLETHODON CINEREUS ERYTHRONOTUS (Green) Cope.

Holbrook, N. A. Herp, 1842, v. 43.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4898	3	Washington, D. C...	.....	Dr. Wm. Stimpson.	Alcoholic.
4891	1	New York.....	.....	.....	Do.
5383	3	Fort William, Lake Superior.	.....	R. Kennicott.....	Do.
5415	2	Lake Superior.....	.....	....do	Do.
5375	5	South of Highlands.	.....	C. Drexler.....	Do.
7148	7	Rock Creek, D. C...	.....	H. W. Elliot	Do.
7823	10	Washington, D. C...	.....	Dr. E. Coues, U. S. A.	Do.
9300	2	Norfolk, Conn	Sept. 26, 1877	A. F. Wooster	Do.
9258	1	Wood's Holl, Mass..	—— —, 1871	U. S. Fish Com	Do.
3766	7	Clark County, Va...	.....	Dr. C. B. R. Kennerly.	Do.
3770	10	Detroit, Mich.....	.....	C. Sayer.....	Do.
3737	10	Coxsackie, N. Y	.....	Prof. S. F. Baird....	Do.
3758	10	Westport, N. Y.	.....	....do	Do.
4828	2	St. Catharines, Can.	.....	Dr. D. W. Beadle ..	Do.
4839	1	Brookville, Ind.....	.....	Dr. R. Haymond ...	Do.
4829	3	St. Catharines, Can.	.....	Dr. D. W. Beadle ...	Do.
3788	4	Racine, Wis	.....	.....	Do.
4728	6	West Northfield, Ill.	.....	R. Kennicott.....	Do.
3768	2	Allegany Co., N. Y..	.....	D. Stevens.....	Do.
12611	1	Potomac River, D.C.	Apr. —, 1882	E. Prindle	Do.
	90				

GENERAL SERIES.

7823	36	Washington, D. C ..	.....	J. W. Dagins.....	Alcoholic.

(377.) PLETHODON CINEREUS DORSALIS (Green) Cope.

Baird MSS.

RESERVE SERIES.

3776	4	Louisville, Ky.....	.....	.....	Alcoholic.

(378.) PLETHODON INTERMEDIUS Baird.

Baird, Jour. Acad. Nat. Sci. Phila., 1857, 209.

RESERVE SERIES.

4732	1	Fort Tejon, Cal.....	.....	J. Xantus.....	Alc. type.

(379.) PLETHODON GLUTINOSUS Green.

Cope, Proc. Acad. Nat. Sci. Phila., 1869, 99.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	Mandeville, La	Nov. —, 1879	N. O. Acad	Alcoholic.
3	Georgia			Do.
2	....do		Dr. W. L. Jones	Do.
1	Tyree Springs, Tenn.			Do.
1	Dayton, Ala		A. E. Edgeworth	Do.
2	Delaware Co., Pa			Do.
10	Carlisle, Pa		Prof. S. F. Baird	Do.
6	Natchez, Miss		Col. B. C. L. Wailes.	Do.
10	Southern Illinois		R. Kennicott	Do.
2	Cincinnati, Ohio		J. N. B. Scarborough	Do.
1	Moulton, Ala			Do.
1	South Carolina			Do.
1				Do.
6	Tyree Springs, Tenn.		Prof. R. Owen	Do.
6	Meadville, Pa		Williams	Do.
8				Do.
3	Charleston, S. C			Do.
5	Abbeville, S. C			Do.
8	Riceborough, Ga			Do.
8	Carlisle, Pa		Prof. S. F. Baird	Do.
3	New Braunfels, Tex		Capt. S. Van Vliet, U. S. A.	Do.
2	Clark County, Va		Dr. C. B. R. Kennerly	Do.
1	New York		J. Stauffer	Do.
3	Racine, Wis			Do.
7	Charleston (?)			Do.
101				

GENERAL SERIES.

1	Norfolk, Va			Alcoholic.
2	Grahamville, S. C		Bailey	Do.
3	Riceborough, Ga			Do.
9	Meadville, Pa		Williams	Do.
1	W. Northfield, Ill		R. Kennicott.	Do.
3	North Carolina		Capt. Wm. Holden.	Do.
19				

(380.) PLETHODON OREGONENSIS Girard.

Cope, Proc. Acad. Nat. Sci. Phila., 1869, 100.

RESERVE SERIES.

1	Monterey, Cal		Canfield	Alcoholic.

(385.) MANCULUS QUADRIDIGITATUS Holbrook.

Holbrook, N. A. Herp., 1842, v, 65.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
9337	3	Mandeville, La.....	Nov. 2, 1876	G. Kohn.....	Alcoholic.

(386.) SPELERPES MULTIPLICATUS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1869, 106.

RESERVE SERIES.

4038	4	Red River, Ark.....	.....	Dr. L. A. Edwards, U. S. A.	Alc. type.

(387.) SPELERPES BILINEATUS Green.

Cope, Proc. Acad. Nat. Sci. Phila., 1869, 105.

RESERVE SERIES.

3738	2	West'n Pennsylvania	.....	Dr. J. Green.....	Alc. type.
8842	1	Cincinnati, Ohio....	.....	J. N. B. Scarborough	Alcoholic.
8833	1	....do.....	.....	....do.....	Do.
3718	7	Meadville, Pa.....	.....	Williams.....	Do.
4736	9	Micanopy, Fla.....	.....	Dr. J. H. Bean.....	Do.
4737	2	Bermuda.....	.....	J. H. Darrell.....	Do.
3745	6	Westport, N. Y.....	.....	Prof. S. F. Baird...	Do.
3740	10	Essex County, N. Y.	.....	....do.....	Do.
3744	1	Columbus, Pa.....	.....	....do.....	Do.
2748	3	Riceborough, Ga....	.....	.....	Do.
3719	10	Meadville, Pa.....	.....	Williams.....	Do.
4735	5	Micanopy, Fla.....	.....	Dr. J. H. Bean.....	Do.
	57				

(388.) SPELERPES LONGICAUDUS Green.

Cope, Proc. Acad. Nat. Sci. Phila., 1869, 105.

RESERVE SERIES.

8842	2	Cincinnati, Ohio....	.....	J.N.B. Scarborough	Alcoholic.
3735	1	Columbus, Ohio....	.....	.....	Do.
3732	3	Meadville, Pa.....	.....	Williams.....	Do.
	6				

(389.) SPELERPES GUTTOLINEATUS Holbrook.

Cope, Proc. Acad. Nat. Sci. Phila., 1869, 105.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2	Riceborough, Ga		Dr. W. L. Jones	Alcoholic.
2	Eutaw, Ala			Do.
3	Lancaster, Ohio		Prof. L. Lesquereux	Do.
1	Abbeville, S. C		Dr. J. B. Barratt	Do.
8				Do.

(390.) SPELERPES RUBER RUBER (Daudin) Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1869, 105.

RESERVE SERIES.

1	Cincinnati, Ohio		J. N. B. Scarborough	Alcoholic.
1	Pointsville, N. J		N. H. Bishop	Do.
10	Carlisle, Pa		Prof. S. F. Baird	Do.
2	Delaware Co., Pa			Do.
3	Washington, D. C		Dr. E. Coues, U. S. A.	Do.
6	Columbia, S. C		Dr. George N. Moran	Do.
1	Augusta, Ga		William Phillips	Do.
1	Union Co., Tenn		J. N. B. Scarborough	Do.
1	Franklin Co., Tenn		do	Do.
1	Cincinnati, Ohio		do	Do.
1	Hamilton Co., Ohio		do	Do.
1	Goldsborough, N. C		H. W. Welsher	Do.
1	Trenton, N. J		Dr. C. C. Abbott	Do.
5	Aux Plains Riv., Ill.		R. Kennicott	Do.
8	Carlisle, Pa		Prof. S. F. Baird	Do.
1				Do.
5	Foxburg, Pa		Prof. S. F. Baird	Do.
3	Meadville, Pa		Williams	Do.
2	Abbeville, S. C		Dr. J. B. Barratt	Do.
2	Morgantown, N. C		Dr. George N. Moran	Do.
2				Do.
4	Carlisle, Pa		Prof. S. F. Baird	Do.
3	Anderson, S. C		Mrs. M. E. Daniel	Do.
1	Columbus, Ga		Dr. Gesner	Do.
1	Fort Benton, Mo		Dr. F. V. Hayden	Do.
67				

GENERAL SERIES.

1	(?)			Alcoholic.
2	Meadville, Pa		Williams	Do.
2	Trenton, N. J		Dr. C. C. Abbott	Do.
1	Virginia	Feb. 20, 1877	F. F. Talbot	Do.
1	(?)			Do.
37	Carlisle, Pa		Prof. S. F. Baird	Do.
141	do		Dr. Stevens	Do.
185				

Catalogue number.
9337

(395.) ANAIDES FERREUS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1869, 109.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
7022	2	Puget's Sound, Oreg.	.....	Dr. C. B. R. Kennerly	Alcoholic.

(396.) DESMOGNATHUS OCHROPHÆA Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1869, 113.

RESERVE SERIES.

3917	5	Allegany Co., N. Y.	.....	Dr. Stevens	Alcoholic.
4041	3	Bradford Co., Pa ...	.....	C. C. Martin	Do.
	8				

(397.) DESMOGNATHUS FUSCA FUSCA (Rafinesque) Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1869, 116.

RESERVE SERIES.

7901	26	Carlisle, Pa	.....	Prof. S. F. Baird....	Alcoholic.
8874	1	Mandeville, La.....	Nov. —, 1878	N. O. Academy	Do.
8332	8	Kinston, N. C.....	.....	Welsher & Milner..	Do.
3883	10	Meadeville, Pa	.....	Prof. Williams	Do.
3916	10	Carlisle, Pa	.....	Prof. S. F. Baird....	Do.
3909	5	Salem, N. C.....	.....	J. T. Lineback	Do.
11899	2	Nashville, Ga.....	Aug. 5, 1880	W. J. Taylor	Do.
3904	10	Abbeville, S. C.....	.....	Prof. S. F. Baird....	Do.
3915	15	Westport, N. Y	.....	.... do	Do.
8823	1	Tennessee	—— —, 1876	J. N. B. Scarborough.	Do.
8829	1	Clearbon, Tenn.....	.....	.... do	Do.
3896	6	Columbus, Ohio	.....	Prof. L. Lesquereux.	Do.
3882	6	Orange, N. J.....	.....	Dr. J. G. Cooper	Do.
3893	5	Pittsburgh, Pa	.....	.....	Do.
3914	3	Highland Co., Ohio.	.....	.....	Do.
12058	3	Mount Carmel, Ill ..	Nov. 22, 1881	L. M. Turner.....	
3908	2	Eutaw, Ala.....	.....	.....	
3891	1	Mississippi	.....	Col. B. L. C. Wailes.	
	115				

GENERAL SERIES.

3909	4	Salem, N. C.....	.....	.....	Alcoholic.
3914	2	Highland Co., Ohio.	.....	.....	Do.
3883	20	Meadville, Pa	.....	Williams	Do.
3891	4	Mississippi	.....	Col. B. L. C. Wailes.	Do.
	30				

(391.) SPELERPES RUBER STICTICEPS (Daud Cope.

Baird, MSS.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From	Received.	Nature of specimen.
11475	2	.....	.....		ward	Alcoholic.
					rough	Do.
					es	Do.

(392.) SPELERPES RUBER MONT

Baird, Jour. Acad. Nat. Sci. P

RESERVE SE

3848	2	Salem, N. C.	.....			
3870	1	Tyree Springs, Tenn.	.....			
7031	1	Hillsborough, N. C	....			
8834	1	Union County, Tenn.	...			Alcoholic.
3839	3	Carlisle, Pa	..			Do.
	8					Do.

(393.) GYRINOPI

Cope, Proc. A

8268	1	Carlisle, P				
3874	4	.... do ...				
3840	1	Canonsb				Alcoholic.
3847	2	Foxburg				Do.
3852	6	Meadvi				Do.
3974	1	Colnm				
8266	10	Carlis				Do.
3841	10	Foxb				Do.
3878	1	Upp				
3749	1	Ric				Do.
	37					Do.
						Do.
						Do.
						Do.
						Do.
						Do.
						Do.
4047	1					
4036						
11424						Alcohol
4004						Do.
4030						Do.
						Do.
4036						Do.
4021						
11576						

ATUS MINIATUS (Rafinesque) Cope.

p., 1842, v, 57.

SERIES.

	en collected.	From whom received.	Nature of specimen.
		Prof. S. F. Baird	Alcoholic.
		R. Kennicott	Do.
		Prof. Williams	Do.
		J. W. Milner	Do.
o		J. N. B. Scarborough	Do.
D. C		Dr. E. Coues, U. S. A.	Do.
n	Sept. 26, 1877	A. F. Wooster	Do.
, N. Y		Prof. S. F. Baird	Do.
s. Valley			Do.
			Do.
River, Tex		Dr. B. F. Shumard	Do.
		(?)	Do.

EMYCTYLUS MINIATUS VIRIDESCENS (Rafinesque) Cope.

Holbrook, N. A. Herp., 1842, v, 77.

RESERVE SERIES.

1	Westport, N. Y		R. Kennicott	Alcoholic.
1	Tioga County, N. Y.		E. E. Howell	Do.
4	do		do	Do.
6	Carlisle, Pa		Prof. S. F. Baird	Do.
10	do		do	Do.
2	Georgia		Dr. W. L. Jones	Do.
6	Illinois (?)		R. Kennicott	Do.
10	Abbeville, S. C		Dr. J. B. Barratt	Do.
3	New York		Prof. S. F. Baird	Do.
2	Columbia Co., Pa		Dr. Henderson	Do.
10	Lexington, Va		Fred. Mather	Do.
4	Moulton, Ala			Do.
2	Virginia	Sept. —, 1874		Do.
4	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
6	Jersey City, N. J			Do.
6	St. Catharines, Canada.		Dr. D. W. Beadle	Do.
77				

GENERAL SERIES.

77	Carlisle, Pa		Prof. S. F. Baird	Alcoholic.
67	do		do	Do.
1	Smith County, Va	May 28, 1876	A. L. Kumlien	Do.
145				

(404.) BUFO PUNCTATUS Baird.

Girard, U. S. Mex. Bound. Surv. Repts., 1859, ii, 25.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2618	3	San Pedro, Tex			Alcoholic.
2617	1	Castaneulas, Mex		Lieut. B. Couch, U. S. A.	Do.
2315	2	Ringgold Barracks, Tex.		A. Schott	Do.
2634	1	Sonora		do	Do.
2619	7	Brazos River, Tex		Dr. B. F. Shumard	Do.
8506	6	Crittenden, Ariz	Aug. —, 1874	J. M. Rutter	Do.
2613	1	Rio San Pedro, N. M.		Dr. S. W. Woodhouse	Do.
8168	1	Arizona	—— —, 1871	F. Bischoff	Do.
2614	7	New Mexico		A. Schott	Do.
4103	2	Upper Cal. Region		H. B. Mollhausen	Do.
1760	4	Long Lake, Mo. (?)		Dr. F. V. Hayden	Do.
12661	11	Le Paz, Cal	—— —, 1882	L. Belding	Do.
12669	3	do	—— —, 1882	do	Do.
	49				

(405.) BUFO DEBILIS Girard.

Baird, U. S. Mex. Bound. Surv. Repts., 1859, ii, 26.

RESERVE SERIES.

2624	1	Delaware Creek			Alcoholic.
2620	2	Chihuahua, Mex		Dr. Thos. Webb	Do.
2621	6	Matamoras, Mex		Lieut. B. Couch, U. S. A.	Do.
2626	1	Georgia	—— —, 1855	Maj. J. Le Conte	Do.
2627	1	Matamoros, Mex		Lieut. B. Couch, U. S. A.	Do.
	11				

(406.) BUFO HALOPHILUS Baird.

Girard, U. S. Mex. Bound. Surv. Repts., 1859, ii, 28.

RESERVE SERIES.

2590	1	Monterey Cal		A. S. Taylor	Alcoholic.
2581	1	San Diego, Cal		Dr. J. L. Le Conte	Do.
2586	2	do		Dr. Thos. Webb	Do.
2589	2	Benicia, Cal		Dr. J. L. Le Conte	Do.
2585	1	San Diego, Cal		Dr. Thomas Webb	Do.
2584	1	Presidio, Cal		Lieut. W. P. Trowbridge, U. S. A.	Do.
9465	6	Fort Tejon, Cal		J. Xantus	Do.
8691	1	Santa Barbara, Cal.	July —, 1875	H. W. Henshaw	Do.
8678	10	do	July —, 1875	do	Do.
8696	1	Lake Tahoe, Cal.	—— —, 1876	do	Do.
8695	1	Virginia City, Nev.	—— —, 1875	William Seckels	Do.
8681	10	Lake Tahoe, Cal.	Aug. —, 1876	H. W. Henshaw	Do.
	37				

(407.) BUFO COLUMBIENSIS Baird.

Girard, Herp. U. S. Expl. Ex., 1858, 77.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	Medicine Bow Creek	.....	Dr. W. A. Hammond	Alcoholic.
6	Columbia Riv., Oreg.	.....	H. B. Mollhausen..	Do.
5	Chilowyuck Lake, Oreg.	.....	Dr. C. B. R. Kennerly	Do.
1	Ft. Umpqua, Oreg..	.....	Dr. E. Vollum, U. S. A.	Do.
1	Selkirk Settlement..	.....	.....	Do.
1	Simahmóo Bay, Wash.	.....	Dr. C. B. R. Kennerly	Do.
1	Shoalwater Bay, Oreg.	.....	Dr. J. G. Cooper...	Do.
10	Cape Flattery, Wash.	.....	.....	Do.
26				

(408.) BUFO COPEII Yarrow & Henshaw.

ow & Henshaw, Rep. Rept. and Bat. Expl. W. of 100th M., 1878, 4.

RESERVE SERIES.

2	Selkirk Settlement, British America.	.....	R. Kennicott.....	Alc. type.
8	James Bay, Brit. Am.	.....	C. Drexler.....	Alcoholic.
10	James Bay, Brit. Am.	.....	C. Drexler.....	Alcoholic.
20				

(409.) BUFO BELDINGI Yarrow.

Yarrow, Proc. Nat. Mus., 1882, 441.

RESERVE SERIES.

6	La Paz, Cal.....	—— —, 1882	L. Belding	Alc. type.
4	....do.....	—— —, 1882	....do.....	Do.
10				

(411.) BUFO MICROSCAPHUS Cope.

Cope, Proc. Acad. Nat, Sci. Phila., 1866, 301.

RESERVE SERIES.

2	Provo, Utah.....	—— —, 1872	Dr. H. C. Yarrow..	Alcoholic.
1	Utah.....	.....	H W. Henshaw	Do.
1	Lake Tahoe, Cal....	Aug. —, 1876	....do	Do.
2	South. Park, Colo...	June —, 1872	Dr. J. T. Rothrock..	Do.
6				

(412.) BUFO PICTUS Cope.

Cope and Yarrow, Zool. Expl. W. of 100th Mer., 1875, v, 522.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
8655	1	Utah	—— —, 1872	Dr. H. C. Yarrow	Alc. type.

(413.) BUFO SPECIOSUS Girard.

Girard, U. S. Mex. Bound. Surv. Repts., 1859, ii, 26.

RESERVE SERIES.

2652	2	Indianola, Tex		Capt. John Pope, U. S. A.	Alcoholic.
2654	5	Encinella		Dr. Thos. Webb	Do.
2612	1	Between Salado River and Camargo		A. Schott	Do.
2609	3	Point Isabella		G. Wurdemann	Do.
2627	1	Fort Bliss, N. Mex		Dr. S W. Crawford, U. S. A.	Do.
2611	1	Pesquieria Grande, N. Leon.		Lieut. B. Couch, U. S A.	Do.
4366	8			Dr. Thos. Webb	Do.
2610	1	Brownsville, Tex		Capt. Stewart Van Vliet, U. S. A.	Do.
2608	1	Ringgold Barracks, Tex.		A. Schott	Do.
	23				

(414.) BUFO LENTIGNOSUS LENTIGNOSUS (Shaw) Cope.

Holbrook, N. A. Herp., 1842, v, 7.

RESERVE SERIES.

2525	10	Riceborough, Ga		Prof. S. F. Baird	Alcoholic.
5902	1	Shelby County, Ga		Maj. J. Le Conte	Do.
2520	8	Pensacola, Fla		Dr. W. A. Hammond, U. S. A.	Do.
2526	1	Indian River, Fla		G. Wurdemann	Do.
8547	1	New Mexico	Aug. —, 1874	Dr. O. Loew	Do.
8549	2	Fort Garland, Colo	July —, 1874	Dr. H. C. Yarrow	Do.
2519	1	Georgetown, D. C		Weston	Do.
8902	3	Lake Monroe, Fla	Apr. —, 1877	Prof. S. F. Baird	Do.
3383	2	Charleston, S. C			Do.
2521	8	do		Dr. C. Girard	Do.
2522	2	Alabama	—— —, 1853	Prof. A. Winchell	Do.
2553	9	Liberty County, Ga		Dr. W. L. Jones	Do.
9426	2	Beaufort, S. C			Do.
9952	2	Little Sarasota Bay, Fla.	—— —, 1875	Prof. F. B. Meek	Do.
9705	1	Arlington, Fla	—— —, 1878	G. Brown Goode	Do.
2528	4	Anderson, S. C		Miss C. Paine	Do.
2527	3	Mississippi		D. C. Lloyd	Do.
	60				

BUFO LENTIGNOSUS LENTIGNOSUS (Shaw) Cope—Continued.

Holbrook, N. A. Herp., 1842, v. 7.

GENERAL SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	(?)	July —, 1875	P. L. Jouy	Alcoholic.
11	Micanopy, Fla		Dr. J. H. Bean	Do.
2	(?)			Do.
15	Charleston			Do.
29				

(415.) BUFO LENTIGINOSUS FRONTOSUS (Shaw) Cope.

Cope, Proc. Acad. Nat. Sci., Phila., 1866, 301.

RESERVE SERIES.

7	Colorado Springs, Colo.	July —, 1874	John Yarrow	Alcoholic.
3	Utah	—— —, 1872	Dr. H. C. Yarrow	Do.
2	Fairfield, Utah	—— —, 1871	....do	Do.
2	Camp Apache, Ariz	Aug. —, 1873	H. W. Henshaw	Do.
1	....do	Aug. —, 1874	J. M. Rutter	Do.
3	Utah	—— —, 1872	Exped. W. of 100th Mer.	Do.
1	Kansas			Do.
2	Yellowstone River	Sept. 10, 1873		Do.
1	New Mexico	—— —, 1875	H. W. Henshaw	Do.
2	Shoshone Lake	Sept. —, 1872	Dr. Josiah Curtis	Do.
24				

(416.) BUFO LENTIGNOSUS COGNATUS (Shaw) Cope.

Holbrook, N. A. Herp., 1842, v, 21.

RESERVE SERIES.

1	Pale Creek, Ark	July 9, 1857	W. S. Wood	Alcoholic.
1	Red River, Ark		Capt. R. B. Marcy	Do.
2	Fort Pierre, Neb		Dr. Evans	Do.
10	Salt Plains		J. H. Clark	Do.
1	Fort Riley, Kans		Dr. W. A. Hammond, U. S. A.	Do.
1	Kansas		R. Kennicott	Do.
2	Coahuila, Mex	—— —, 1853	Lieut. B. Couch, U. S. A.	Do.
6	Sand Hills		Dr. F. V. Hayden	Do.
2	Fort Garland, Colo	July 23, 1873	H. W. Henshaw	Do.
1	Nebraska		Capt. J. H. Simpson, U. S. A.	Do.
1	Fort Garland, Colo			Do.
1				Do.
3	Little Blue River, Kans.		Dr. J. G. Cooper	Do.
1	Ralston, Ariz.		Dr. C. G. Newberry	Do.
2	Near Colorado River		....do	Do.
8	Fort Kearney, Nebr.		W. S. Wood	Do.
43				

(417.) BUFO LENTIGNOSUS AMERICANUS (Shaw) Cope.

Girard, U. S. Mex. Bound. Surv. Repts., 1859, ii, 25.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
2482	5	Root River, Wis		Prof. S. F. Baird	Alcohol
2505	1	Racine, Wis		Dr. P. R. Hoy	Do.
257	6	Fort Laramie, Wyo.		Dr. J. G. Cooper	Do.
2480	4	Salem, N. C		J. T. Lineback	Do.
8342	1	Kinston, N. C.			Do.
2479	2	Jackson County, N.C		Fitzgerald	Do.
7843	10	Washington, D. C		Dr. E. Cones, U.S.A.	Do.
2515	1	....do			Do.
8307	1	....do	April 3, 1875	J. Palmer	Do.
2492	1	....do			Do.
2470	2	Abbeville, S. C		Dr. J. B. Barratt	Do.
2487	6	Anderson, S. C		Mrs. M. E. Daniels.	Do.
2518	1	Charleston, S. C			Do.
2557	7	Prairie Mer Rouge, La.		Jas. Fairie	Do.
2554	10	New Orleans, La		N. O. Academy	Do.
2466	3	Framingham, Mass		Prof. S. F. Baird	Do.
2493	3	Union County, Mo		Dr. P. R. Hoy	Do.
2483	1	Missouri			Do.
2521	2	Saint Louis, Mo		Dr. Geo. Englemann	Do.
2476	3	Marietta, Ohio	—— —, 1853	Prof. E. B. Andrews.	Do.
2474	5	Columbus, Ohio		Prof. L. Lesquereux.	Do.
2503	1	Highland Co., Ohio.			Do.
2630	3	Monticello, Miss		Miss Helen Tunnison	Do.
2527	1	Mississippi			Do.
2516	3	Mount Holly, N. J		Prof. S. F. Baird	Do.
2555	7	Maryland		Stagg	Do.
2558	2	Fort Smith, Ark		Dr. B. F. Shumard.	Do.
2495	1	Tyree Springs, Tenn		Prof. R. Owen	Do.
2463	1	Foxbury, Pa			Do.
2468	1	Philadelphia, Pa		J. H. Richard	Do.
2504	1	....do			Do.
2485	50	Carlisle, Pa		Prof. S. F. Baird	Larva.
2498	1	Meadville, Pa		J. F. Thickston	Alcohol
2512	1	Carlisle, Pa			Do.
2556	4	Bradford County, Pa		C. C. Martin	Do.
2653	1	South Platte			Do.
2507	10	Essex County, N. Y		Prof. S. F. Baird	Do.
2494	3	Oneida County, N. Y		H. Davis	Do.
4782	1	Elizabethtown, N. Y			Do.
2481	5	Aux Plains, Ill		R. Kennicott	Do.
....	2	Southern Illinois		....do	Do.
2496	.	Western Mississippi			Do.
2632	1	Canadian River		H. B. Mollhausen	Do.
2497	3	Minnesota		A. L. Riggs	Do.
5372	6	South of Highlands		C. Drexler	Do.
8503	1	Plaza del Alcalde, N. M.		Dr. H. C. Yarrow	Do.
4185	1	Fort Defiance, N. M.		H. B. Mollhausen	Do.
2533	1	Little Blue R., Kan.		W. S. Wood	Do.
2510	3	Eutaw, Ala		Prof. A. Winchell.	Do.
2534	1	South Platt R., Nebr.	July 14, 1856	W. S. Wood	Do.
9430	3	Milledgeville, Ga	June 4, 1876	Kumlien & Bean	Do.
2486	200	Carlisle, Pa		Prof. S. F. Baird	Larva.
2552	1	Fort Laramie, Nebr.			Alcohol, &c.
5243	3	Cantonment Burgwyn, N. Mex.		Capt. R. Anderson, U. S. A.	Do.
2531	1	California Mts., Mex		Dr. S. B. Woodhouse	Do.
4570	4	Upper California Region.		H. B. Mollhausen	Do.
2535	2	Yellowstone River	July 14, 1856	Dr. F. V. Hayden	Do.

BUFO LENTIGNOSUS AMERICANUS (Shaw) Cope—Continued.

Girard, U. S. Mex. Bound. Surq. Repts., 1859, ii, 25.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	Eastport, Me	—— —, 1872	U. S. F. C	Larva.
1	Near Antelope Creek		H. B. Mollhausen	Do.
1	Russellville, Ky		Geo. Bibb	Do.
1	Pearl River, Miss		Miss H. Tunnison	Do.
1	Centre County, Pa		Brugger	Do.
6	Nebraska		Dr. Geo. Suckley, U. S. A.	Do.
1	....do			Do.
1	Woods Holl, Mass		Dr. T. H. Bean	Do.
4	Havre de Grace, Md	June 14, 1876	A. L. Kumlien	Alcoholic.
2	Norfolk, Conn	Sept. 26, 1877	A. F. Wooster	Do.
1	Pensacola, Fla			Do.
1	Iowa		R. Kennicott	Do.
1	Utah	—— —, 1872	Dr. H. C. Yarrow	Type.
427				

GENERAL SERIES.

11	South Platte		Dr. W. A. Hammond, U. S. A.	Alcoholic.
7	Washington Co., Miss		Col. B. L. C. Wailes.	Do.
2	(?)			Do.
8	(?)			Do.
1	Fort Mohave, Ariz	April 15, 1862	Dr. J. G. Cooper	Do.
1	(?)			Do.
1	(?)			Do.
1	Camak, Ga	—— —, 1876		Do.
1	Central Park			Do.
3	(?)			Do.
1	Platte River	July 1, 1857	W. S. Wood	Do.
2	South Platte River		Dr. W. A. Hammond, U. S. A.	Do.
51	Mississippi River		Col. J. H. Vaughan.	Do.
2	Danvers, Mass		Prof. S. F. Baird	Do.
1	Center County, Pa		Brugger	Do.
5	Yellowstone		A. Schott	Do.
4	Fort Riley, Kans		H. Brandt	Do.
7	New Orleans, La			Do.
1	Kinston, N. C		J. W. Milner	Do.
1	Goldsboro N. C		H. W. Welsher	Do.
7	Platte Valley		Dr. W. A. Hammond, U. S. A.	Do.
6	Kinston, N. C		J. W. Milner	Do.
8	Essex County, N. Y.		Prof. S. F. Baird	Do.
427				

(418.) BUFO LENTIGINOSUS FOWLERI (Shaw) Cope.

Putnam, MSS.

RESERVE SERIES.

1	Danvers, Mass		Prof. F. W. Putnam	Alcoholic.
1	....do		....do	Do.
1	....do		....do	Do.
3				

(419.) BUFO QUERCICUS Holbrook.

Holbrook, N. A. Herp., 1842, v. 13.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
5911	5	Georgia		Maj. J. Le Conte	Alcoholic.
8343	1	Kinston, N. C			Do.
9695	1	Arlington, Fla	May 1, 1878	G. Brown Goode	Do.
9945	4	Little Sarasota Bay, Fla.	—— —, 1875	Prof. F. B. Meek	Do.
2626	3	Georgia	—— —, 1855	Maj. J. Le Conte	Do.
2625	3	Charleston, S. C		Dr. S. B. Barker	Do.
	17				

(420.) BUFO VALLICEPS Wiegmann.

Girard, U. S. Mex. Bound. Surv. Repts., 1859, ii, 25.

RESERVE SERIES.

2663	10	Calcasieu Pass, La		G. Wurdemann	Alcoholic.
2605	7				Do.
2595	1	Texas		J. H. Clark	Do.
2598	1	Brownsville, Tex		Prof. S. F. Baird	Do.
2594	1	Fort Inge, Tex		Dr. C. B. R. Kennerly	Do.
2602	2	New Braunfels, Tex		Prof. S. F. Baird	Do.
2399	2	Santa Caterina, Nueva Leon.		Lt. B. Couch, U. S. A.	Do.
2592	1	San Pedro, Tex		Dr. C. B. R. Kennerly	Do.
2591	2	Matamoras, Mex		Lt. B. Couch, U. S. A.	Do.
2600	2	Between Lardo and Camargo.		A. Schott	Do.
	29				

(421.) ENGYSTOMA CAROLINENSE Holbrook.

Holbrook, N. A. Herp., 1842, v, 23.

RESERVE SERIES.

3709	1	Washington Co., Mo		Col. B. L. C. Wailes	Alcoholic.
4744	1	Micanopy, Fla		Dr. J. H. Bean	Do.
4192	2	Riceborough, Ga		Dr. W. L. Jones	Do.
5910	4	do		Maj. J. Le Conte	Do.
3699	1	Columbus, Ga		Dr. Gesner	Do.
3707	1	do		do	Do.
3978	5	Calcasieu Pass, La		Geo. Wurdemann	Do.
2973	1	Charleston, S. C		Dr. C. Girard	Do.
9396	1	Florida			Do.
9954	3	Little Sarasota Bay, Fla.	—— —, 1875	Prof. F. B. Meek	Do.
	20				

(422.) ACRIS GRYLLUS GRYLLUS (Le Conte) Cope.

Holbrook, N. A. Herp., 1842, iv, 131.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
8	Grand Detour, Ill		Dr. P. R. Hoy	Alcoholic.
1	Pensacola, Fla		Dr. J. P. Hammond, U. S. A.	Do.
6	New Madrid, Mo		R. Kennicott	Do.
7	Charleston, S. C		Dr. C. Girard	Do.
5	Georgia		Dr. J. L. Le Conte	Do.
7	....do		....do	Do.
6	Salem, N. C		J. T. Lineback	Do.
2	Mobile, Ala		Pilichody	Do.
1	Southern Illinois		R. Kennicott	Do.
3	Arlington, Fla		G. Brown Goode	Do.
46				

(423.) ACRIS GRYLLUS CREPITANS (Le Conte) Cope.

Baird, U. S. Mex. Bound. Surv. Repts., 1859, ii, 28.

RESERVE SERIES.

4	Oconomowoc River, Wis.		Prof. S. F. Baird	Alcoholic.
2	....do		A. C. Barry	Do.
1	Fort Inge, Tex.		Dr. C. B. R. Kennerly	Do.
1	....do		....do	Do.
1	New Braunfels, Tex.		F. Lindheimer	Do.
1	Indianola, Tex		J. H. Clark	Do.
3	Russellville, Ky		Bibb	Do.
5	Prairie Mer Rouge, La.		Jas. Fairie	Do.
1	Fort Smith, Ark		Dr. B. F. Shumard	Do.
2	Aztalan, Wis		Prof. S. F. Baird	Do.
2	Washington, D. C		Dr. Wm. Stimpson	Do.
1	Carlisle, Pa		Prof. S. F. Baird	Do.
2	Verdigris River		J. H. Clark	Do.
5	North Platte, Nebr		W. S. Wood	Do.
9	South Fork		Dr. F. V. Hayden	Do.
6	105 miles W. of Fort Riley, Kans.		W. S. Wood	Do.
3	Republican R., Mo		Dr. W. A. Hammond, U. S. A.	Do.
1	Rock Marcy		H. B. Mollhausen	Do.
6	Saint Louis, Mo		Dr. G. Englemann	Do.
3	Mason County, Ill		R. Kennicott	Do.
4	South Grand R., Miss.		Dr. P. R. Hoy	Do.
2	Kansas		Dr. J. G. Cooper	Do.
1	Tickfaw, La	Dec. 29, 1876	Dr. T. H. Bean	Do.
8	Goldsborough, N. C		J. W. Milner	Do.
74				

GENERAL SERIES.

1	Loup Fork		Lieut. G. Warren, U. S. A.	Alcoholic.
1	Saint Louis, Mo		Dr. G. Englemann	Do.
3	Fort Riley, Kans		Lieut. F. T. Bryan, U. S. A.	Do.
5				

(424.) CHOROPHILUS TRISERIATUS TRISERIATUS (Pr. Max. Wied.) Cope.

Pr. Max. Wied., Verzeich. Rept. Reise in N. A., 1865, 118.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
8553	5	Fairplay, Colo	July 11, 1873	Dr. J. T. Rothrock	Alcoholic.
3588	3	West Northfield, Ill.		R. Kennicott	Do.
5934	3	Fort Resolution		do	Do.
3309	2	Fort Union, N. Mex.		Lieut. Gross, U. S. A	Do.
3306	4	Fort Pierre, Nebr.		Gov. Stevens	Do.
4573	1	Blue River, Kans.		Dr. J. G. Cooper	Do.
5146	2	Red River of North.		R. Kennicott	Do.
8552	1	Pagosa, Colo		Dr. H. C. Yarrow	Do.
8551	1	do	Sept. —, 1874	do	Do.
3619	2	South Grand River, Western Missouri.		Dr. P. R. Hoy	Do.
5382	6	Selkirk Settlement.		R. Kennicott	Do.
9633	1	Fort Garland, Cal	June —, 1872	H. W. Henshaw	Do.
9667	3	Prince George's Co., Md.	—— —, 1878	Dr. T. H. Bean	Do.
	34				

(425.) CHOROPHILUS TRISERIATUS CLARKI (Pr. Max. Wied.) Cope.

Baird, U. S. Mex. Bound. Surv. Repts., 1859, 28.

RESERVE SERIES.

3313	1	Galveston, Tex.		M. Dean	Alcoholic.

(427.) CHOROPHILUS NIGRITUS Le Conte.

Holbrook, N. A. Herp., 1842, iv, 107.

RESERVE SERIES.

9702	2	Arlington, Fla		G. Brown Goode	Alcoholic.
5935	2	Liberty Co., Ga		Dr. J. L. Le Conte	Do.
3593	5	Charleston, S. C		Dr. S. B. Barker	Do.
	9				

(429.) CHOROPHILUS OCULARIS Daudin.

Günther, Cat. Bat. Salien. Brit. Mus., 1858, 29.

RESERVE SERIES.

3584	2	Liberty Co., Ga		Maj. J. Le Conte	Alcoholic.
3587	2	do		do	Do.
	4				

(430.) CHOROPHILUS ORNATUS Holbrook.

Holbrook, N. A. Herp., 1842, iv, 103.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
3590	2	Georgia		Maj. J. Le Conte	Alcoholic.
5905	1	Riceboro', Ga		do	Do.
5906	2	do		do	Do.
	5				

(431.) HYLA CURTA Cope.

Cope, Proc. Acad. Nat. Sci., Phila., 1866, 313.

RESERVE SERIES.

3227	10	Sonoma Co., Cal		E. Samuels	Alcoholic.
12659	2	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
	12				

(432.) HYLA REGILLA Baird.

Girard, Herp. U. S. Expl. Ex., 1858, 60.

RESERVE SERIES.

3246	3	Fort Vancouver, Wash.		Dr. J. G. Cooper	Alcoholic.
3232	3	do		do	Do.
9181	4	Puget Sound, Alaska			Do.
9182	1	do		C. P. Ex. Ex	Do.
8512	1	Cerros Island, L. Cal		Dr. J. H. Streets, U. S. N.	Do.
3229	2	Yuba, Cal		Dr. C. G. Newberry.	Do.
3253	1	Astoria, Oreg		Lieut. W. P. Trowbridge, U. S. A.	Do.
4552	3	Fort Umpqua, Oreg.		Dr. E. Vollum, U.S.A.	Do.
3236	1	Shoalwater Bay, Washington Terr.		Dr. J. G. Cooper	Do.
3250	1	Fort Dalles, Oreg		Dr. G. Suckley, U.S.A	Do.
3240	5	do		do	Do.
3252	5	Puget Sound, Oreg		do	Do.
9424	1	Chilowyuck Lake, Oreg.		Dr. C. B. R. Kennerly.	Do.
9449	1	California		Dr. J. G. Cooper	Do.
9500	2	Southern California.	—, 1875	H. W. Henshaw	Do.
8704	1	Los Angeles, Cal	July —, 1875	Wm. Somers	Do.
8680	5	Santa Barbara, Cal.	July —, 1875	H. W. Henshaw	Do.
8701	7	do	June —, 1875	do	Do.
8686	20	Santa Cruz Island, Cal.	June —, 1875	do	Do.
8702	1	Mount Whitney, Cal	Sept. —, 1875	do	Do.
8697	1	Mountains near Fort Tejon, Cal.	Aug. —, 1875	do	Do.

(432.) HYLA REGILLA Baird—Continued.

Girard, Herp. U. S. Expl. Ex., 1858, 60.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
9499	5	Lake Tahoe, Nev...	Oct. 4, 1876	H. W. Henshaw ...	Alcohol.
8682	22	....do.....	Aug. —, 1876	....do	Do.
8703	4	Fort Tejon, Cal.....	July —, 1875	....do	Do.
4895	9	....do	.....	John Xantus	Do.
5293	19	....do	.....	....do	Do.
3245	3	Monterey, Cal	.....	Dr. G. Suckley, U.S.A	Do.
9341	1	California	—— —, 1877	L. Stone.	Do.
8977	6	Puget's Sound, Oreg	Aug. 11, 1872	Dr. C. B. R. Kennerly	Do.
3235	8	California	.....	A. L. Heerman	Do.
11574	8	San Diego, Cal	.....	Dr. John L. Le Conte	Do.
3242	6	Fort Dalles, Oreg..	.....	Dr. Geo. Suckley, U. S. A.	Do.
5932	3	Fort Crook, Cal	.....	John Feiner.....	Do.
11970	1	La Paz, Cal	—— —, 1882	L. Belding.....	Do.
11969	1	....do	—— —, 1882	....do	Do.
	165				

GENERAL SERIES.

4568	21	Fort Tejon, Cal.....	.....	J. Xantus	Alcoholic.
9446	1	California.....	.....	Dr. J. G. Cooper ...	Do.
5251	1	Fort Walla Walla, Wash.	.....	Lieut. Mullen.....	Do.
8686	46	Santa Cruz, Cal	June —, 1875	H. W. Henshaw....	Do.
	69				

(433.) HYLA EXIMIA Baird.

Baird, U. S. Mex. Bound. Surv. Repts., 1859, 29.

RESERVE SERIES.

3248	1	City of Mexico.....	.....	Maj. R	Alcoholic.
8508	2	Nutrias, N. Mex	.....	H. W. Henshaw ...	Do.
9338	2	Santa Fé, N. Mex...	June —, 1874	....do	Do.
	5				

(434.) HYLA ANDERSONI Baird.

Cope, Proc. Acad. Nat. Sci. Phila., 1862, 154.

RESERVE SERIES.

3600	1	Anderson, S. C	.....	Miss C. Paine.....	Alcoholic.

(430.) CHOROPHILUS ORNATUS Holbrook.

Holbrook, N. A. Herp., 1842, iv, 103.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
3590	2	Georgia		Maj. J. Le Conte	Alcoholic.
5905	1	Riceboro', Ga		do	Do.
5906	2	do		do	Do.
	5				

(431.) HYLA CURTA Cope.

Cope, Proc. Acad. Nat. Sci., Phila., 1866, 313.

RESERVE SERIES.

3227	10	Sonoma Co., Cal		E. Samuels	Alcoholic.
12659	2	La Paz, Cal	Feb. —, 1882	L. Belding	Do.
	12				

(432.) HYLA REGILLA Baird.

Girard, Herp. U. S. Expl. Ex., 1858, 60.

RESERVE SERIES.

3246	3	Fort Vancouver, Wash.		Dr. J. G. Cooper	Alcoholic.
3232	3	do		do	Do.
9181	4	Puget Sound, Alaska			Do.
9182	1	do		C. P. Ex. Ex	Do.
8512	1	Cerros Island, L. Cal		Dr. J. H. Streets, U. S. N.	Do.
3229	2	Yuba, Cal		Dr. C. G. Newberry.	Do.
3253	1	Astoria, Oreg		Lieut. W. P. Trowbridge, U. S. A.	Do.
4552	3	Fort Umpqua, Oreg.		Dr. E. Vollum, U. S. A.	Do.
3236	1	Shoalwater Bay, Washington Terr.		Dr. J. G. Cooper	Do.
3250	1	Fort Dalles, Oreg		Dr. G. Suckley, U. S. A	Do.
3240	5	do		do	Do.
3252	5	Puget Sound, Oreg		do	Do.
9424	1	Chilowyuck Lake, Oreg.		Dr. C. B. R. Kennerly.	Do.
9449	1	California		Dr. J. G. Cooper	Do.
9500	2	Southern California.	—— —, 1875	H. W. Henshaw	Do.
8704	1	Los Angeles, Cal	July —, 1875	Wm. Somers	Do.
8680	5	Santa Barbara, Cal.	July —, 1875	H. W. Henshaw	Do.
8701	7	do	June —, 1875	do	Do.
8686	20	Santa Cruz Island, Cal.	June —, 1875	do	Do.
8702	1	Mount Whitney, Cal	Sept. —, 1875	do	Do.
8697	1	Mountains near Fort Tejon, Cal.	Aug. —, 1875	do	Do.

(438.) HYLA PICKERINGI Holbrook.

Holbrook, N. A. Herp., 1842, iv, 135.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
3604	1	Aux Plaines Riv., Ill	.....	R. Kennicott.....	Alcoholic.
3609	1	Marietta, Ohio.....	.....	Prof. E. B. Andrews	Do.
3602	1	Carlisle, Pa.....	.....	Prof. S. F. Baird...	Do.
3603	1	Abbeville, S. C.....	.....	Dr. J. B. Barratt...	Do.
3608	2	Boston, Mass	.....	Prof. L. Agassiz....	Do.
3505	1	Elizabethtown, N.Y.	.....	Prof. S. F. Baird...	Do.
3610	1	Carlisle, Pa	.....	....do.....	Do.
9669	1	Prince George's Co., Md.	.....	Dr. T. H. Bean.....	Do.
5380	2	Selkirk Settlement..	.....	R. Kennicott	Do.
	11				

(439.) HYLA FEMORALIS Daudin.

Holbrook, N. A. Herp., 1842, iv, 127.

RESERVE SERIES.

5908	1	Riceboro', Ga.....	.....	Maj. J. Le Conte....	Alcoholic.
3599	2	... do.....	.....	.....	Do.
3598	2	Liberty Co., Ga	.....	Maj. J. Le Conte....	Do.
9697	2	Arlington, Fla	—— —, 1878	G. Brown Goode ...	Do.
4718	2	Micanopy, Fla	.....	Dr. T. H. Bean.....	Do.
	9				

(440.) HYLA VERSICOLOR Le Conte.

Holbrook, N. A. Herp., 1842, iv, 45.

RESERVE SERIES.

3637	8	Prairie Mer Rouge, La.	.....	Jas. Fairie	Alcoholic.
3635	1	Anderson, S. C.....	.....	Miss C. Paine	Do.
3639	1	Kemper Co., Miss...	.....	D. C. Lloyd	Do.
3643	1	Ann Arbor, Mich	.....	Prof. S. F. Baird....	Do.
3642	1	Grosse Isle, Mich ..	.....	Rev. C. Fox.....	Do.
3628	1	Racine, Wis	.....	Dr. P. R. Hoy	Do.
3638	3	Columbus, Ohio	.....	Prof. L. Lesquereux	Do.
4892	1	Green Plains, N. C..	.....	G. F. Moore	Do.
4831	3	Brookville, Ga	.....	Dr. W. A. Hammond, U. S. A.	Do.
3643	1	Mount Holly, N. J ..	.....	.....	Do.
3626	1	Eutaw, Ala	.....	Prof. A. Winchell ..	Do.
3641	2	Westport, N.Y	.....	Prof. S. F. Baird....	Do.
3234	2	New Braunfels, Tex .	.....	F. Lindheimer	Do.
3632	2	Aux Plaines Riv., Ill.	.....	R. Kennicott.....	Do.
5957	1	.....	.....	.....	Do.
3636	6	Carlisle, Pa.....	.....	Prof. S. F. Baird....	Do.
3627	1	Washington, D. C...	.....	.... do	Do.
5017	1	South Carolina.....	.....	.....	Do.
3680	1	Tarboro', N. C	.....	J. L. Bridger	Do.
4557	1	Maryland	.....	C. B. Adams	Do.
3665	3	Weathersfield, Conn.	.....	C. Wright	Do.
3670	3	Meadville, Pa	.....	J. F. Thicktstun ...	Do.

(440. (HYLA VERSICOLOR Le Conte—Continued.

Holbrook, N. A. Herp., 1842, iv, 45.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	Southern Illinois	.....	R. Kennicott	Alcoholic.
1	Washington, D. C.	.....	.....	Do.
1	Saint Louis, Mo	.....	Dr. G. Englemann	Do.
1	West Philadelphia, Pa.	.....	W. S. Wood	Do.
4	Saint Catherine's, Ga	.....	Dr. D. W. Beadle	Do.
2	North Red River	.....	R. Kennicott	Do.
1	Natchez, Miss	.....	Col. B. C. L. Wailes	Do.
2	Roan County, Tenn.	.....	Prof. Mitchell	Do.
1	New Orleans, La	.....	St. Charles Coll	Do.
1	Goldsborough, N. C.	.....	.....	Do.
1	Tangipahoa Riv., La	Aug. —, 1875	Fred. Mather	Do.
2	Claiborne Co, Tenn.	.....	J. N. B. Scarborough	Do.
1	Memphis, Tenn	.....	Dr. John N. Woodworth.	Do.
1	Potomac Riv., D. C	.....	Geo. Shoemaker	Do.
5	Washington, D. C.	.....	Dr. E. Coues, U. S. A.	Do.
1	Goldsborough, N. C	.....	J. W. Milner	Do.
1	Southern Illinois	.....	R. Kennicott	Do.
1	Mount Holly, N. J	.....	Prof. S. F. Baird	Do.
73				

GENERAL SERIES.

1	Alabama	.....	W. M. Stewart	Alcoholic.
1	Grand Couteau, La.	.....	Chas. Cole	Do.
3	New Orleans Academy, La.	.....	.....	Do.
8	Pearl River, Miss	.....	Miss Helen Tunnison	Do.
1	Cook County, Ill	.....	R. Kennicott	Do.
1	Anderson, S. C	.....	Mrs. M. C. Daniel	Do.
1	Du Que-ne, Ill	.....	R. Kennicott	Do.
1	Summerville, S. C	.....	J. C. McNair	Do.
2	Salem, N. C.	.....	J. T. Lineback	Do.
1	Union County, Wis.	.....	Dr. P. R. Hoy	Do.
1	Saint Louis, Mo	.....	W. S. Wood	Do.
2	Columbus, Ga	.....	Dr. Gesner	Do.
1	(?)	.....	.....	Do.
3	Southern States	.....	.....	Do.
9	Liberty County, Ga.	.....	Maj. J. Le Conte	Do.
36				

(441.) HYLA ARENICOLOR Cope.

Baird, U. S. Mex. Bound. Surv., Repts., 1859, 29.

RESERVE SERIES.

1	Santa Fé, N. Mex	June —, 1873	Dr. O. Loew	Alcoholic.
2	Southern California.	—— —, 1875	H. W. Henshaw	Do.
1	Utah	—— —, 1872	Dr. H. C. Yarrow	Do.
1	Sonora, Mex	.....	J. H. Clark	Alc. type.
5				

(442.) HYLA CADAVERINA Cope.

Hallowell, P. R. R. Surv., Williamson's Rept., 1853, x, 21.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
3230	1	California		Dr. A. L. Heerman	Alcoholic.

(443.) HYLA GRATIOSA Le Conte.

Le Conte, Proc. Acad. Nat. Sci. Phila., 1856, 146.

RESERVE SERIES.

3675	2	Saint Augustine, Fla		E. R. Smith	Alcoholic.
4742	6	Micanopy, Fla		Dr. J. H. Bean	Do.
5901	7	Riceborough, Ga		Maj. J. Le Conte	Do.
	15				

(444.) SMILISCA BAUDINI Duméril.

Baird, U. S. Mex. Bound. Surv., Repts., 1859, p. 29, pl. xxxviii, figs. 1-3.

RESERVE SERIES.

3256	1	Brownsville, Tex		Capt. S. Van Vliet, U. S. A.	Alc. type.

(446.) LITHODYTES LATRANS Cope.

Cope, Am. Nat., 1878, 186.

RESERVE SERIES.

10751	1	Beaver Co., Tex	Feb. 10, 1880	G. W. Marnock	Alcoholic.
10752	1	....do	Feb. 10, 1880	....do	Do.
10753	1	....do	Feb. 10, 1880	....do	Do.
	3				

(448.) EPIRHEXIS LONGIPES Baird.

Baird, U. S. Mex. Bound. Surv., 1859, pl. 37, figs. 1-3.

RESERVE SERIES.

3376	1	California		Dr. A. L. Heerman	Alcoholic.
5377	6	Selkirk Settlement, B. A.		D. Gunn	Do.
	7				

(449.) SPEA BOMBIFRONS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1863, 53.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
4567	4	.....	.....	Dr. Thos. Webb	Alcoholic.
9943	1	Camp Thorne, Yellowstone.	Sept. 10, 1873	.....	Do.
	5				

(450.) SPEA HAMMONDI Baird.

Cope, Proc. Acad. Nat. Sci. Phila., 1863, 53.

RESERVE SERIES.

9453	1	California	.....	Dr. J. G. Cooper	Alcoholic.

(451.) SPEA MULTIPLICATA Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1863, 52.

RESERVE SERIES.

3694	1	Valley of Mexico ...	.....	J. Potts.....	Alcoholic.

(452.) SPEA STAGNALIS Cope.

Cope & Yarrow, Rept. Zool. Exp. W. of 100 Mer., 1875, v. 525.

RESERVE SERIES.

8559	3	Alto dos Utas, N. Mex	Sept. —, 1874	Prof. E. D. Cope....	Alc. type.
8653	1	Utah	—— —, 1872	Dr. H. C. Yarrow ..	Alcoholic.
9628	1	California	Aug. —, 1875	....do	Do.
	5				

(453.) SCAPHIOPUS VARIUS VARIUS Cope.

Cope, Proc. Acad. Nat. Sci. Phila., 1863, 52.

RESERVE SERIES.

5893	3	Cape Saint Lucas, Cal.	.....	John Xantus	Alcoholic.
8100	1	Provo, Utah.....	—— —, 1872	Dr. H. C. Yarrow ..	Do.
	4				

(455.) SCAPHIOPUS COUCHI Baird.

Cope, Proc. Acad. Nat. Sci. Phila., 1863, 52.

RESERVE SERIES.

5075	1	Northern Texas	.....	.....	Alcoholic.
8188	2	Utah	—— —, 1872	Dr. H. C. Yarrow ..	Do.
12657	13	La Paz, Cal	—— —, 1882	L. Belding	Do.
	16				

(456.) SCAPHIOPUS HOLBROOKI Harlan.

Cope, Proc. Acad. Nat. Sci. Phila., 1863, 54.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
9390	2	Liberty County, Ga.	.....	Maj. J. Le Conte...	Alcoholic.
9709	8	Milledgeville, Ga...	—— —, 1876	Kumlien & Bean...	Do.
3710	1	Cambridge, Mass...	.....	.....	Do.
3696	2	....do.....	.....	J. H. Richard.....	Do.
4559	1	Pearl River, Miss...	.....	Miss Helen Tunnison	Do.
3706	1	Indian River, Fla...	.....	G. Wurdemann	Do.
3712	1	....do.....	.....	Prof. L. Agassiz ..	Do.
4563	1	St. Simon's Isle, Ga.	.....	J. B. Postell.....	Do.
	17				

(457.) RANA AREOLATA AREOLATA (Baird & Girard) Cope.

Baird & Girard, U. S. Mex. Bound. Surv. Repts., 1859, 28.

RESERVE SERIES.

3304	1	Indianola, Tex.	.....	J. H. Clark.....	Alcoholic.
3382	1	St. Francisco Mountains, N. Mex.	.....	Dr. S. W. Woodhouse	Do.
	2				

(458.) RANA AREOLATA CAPITO (Baird & Girard) Cope.

Le Conte, Proc. Acad. Nat. Sci. Phila., 1855, 425.

RESERVE SERIES.

5903	1	Riceboro', Ga	.....	Maj. J. Le Conte...	Alcoholic.
4743	1	Micanopy, Fla.....	.....	Dr. T. H. Bean	Do.
9386	2	Northern Illinois. ..	.....	R. Kennicott.....	Do.
9389	1	Liberty County, Ga.	.....	Maj. J. Le Conte...	Do.
	5				

(459.) RANA MONTEZUMÆ Baird.

Baird, U. S. Mex. Bound. Surv. Repts., 1859, 27.

RESERVE SERIES.

3345	3	Shoalwater Bay, Wash.	.....	Col. J. D. Vaughan.	Alcoholic.
3349	1	Upper Mississippi ..	.....	Dr. J. G. Cooper ...	Do.
	4				

RANA HALECINA HALECINA (Kalm) Cope.

Holbrook, N. A. Herp., 1842, iv, 91.

RESERVE SERIES.

No.	Locality.	When collected.	From whom received.	Nature of specimen.
	Washington, D. C		John Little	Alcoholic.
	Greeboro', Ga		Prof. S. F. Baird	Do.
	Fort Huron, Mich		do	Do.
	Quebec, Canada		do	Do.
	Racine, Wis		do	Do.
	Root River, Wis		do	Do.
	Pensacola, Fla		Dr. J. F. Hammond, U. S. A.	Do.
	Fort Ripley, Minn		Dr. J. Head, U. S. A	Do.
	Subec Pond, Me	Oct. 24, 1873	H. A. Leonard	Do.
	Southern Illinois		R. Kennicott	Do.
	Fort Smith, Ark		Dr. B. F. Shumard	Do.
	Russellville, Ky		Dr. Bibb	Do.
	Prairie Mer Rouge, La.		Jas. Fairie	Do.
	Red River of North		R. Kennicott	Do.
6	Provo, Utah	—— —, 1872	Dr. H. C. Yarrow	Do.
2	Nebraska		Dr. Geo. Suckley, U. S. A.	Do.
6	Fort Pierre, Nebr		Dr. Evans	Do.
7	Carlisle, Pa		Prof. S. F. Baird	Do.
3	Columbus, Ohio		Prof. L. Lesquereux.	Do.
10	Saint Louis, Mo		Dr. G. Englemann	Do.
1	South Pass, Miss		C. McCarthy	Do.
3	Charleston, S. C		Dr. C. Girard	Do.
5	Framingham, Mass		Prof. S. F. Baird	Do.
5	Taos, N. Mex		Dr. H. C. Yarrow	Do.
1	Preston Co., Va		Prof. E. B. Andrews	Do.
2	Athabasca River, British America.		R. Kennicott	Do.
1	Tarboro', N. C		J. L. Bridger	Do.
1	Cairo, Ill			Do.
1	Brookville, Pa		Dr. R. Haymond	Do.
1	Tickfaw, La	Dec. 22, 1876	Bean & Maxson	Do.
6	James Bay, N. B		C. Drexler	Do.
8	Liberty Co., Ga		Dr. W. L. Jones	Do.
2	Grand Detour, Ill		Dr. P. R. Hoy	Do.
1	Iowa		E. C. Bridwell	Do.
2	Grand Coutean, La.		St. Charles Coll	Do.
3	Southern Illinois		R. Kennicott	Do.
2	Fort Union, Mo		D. J. Denig	Do.
2	St. Augustine, Fla		E. K. Smith	Do.
3	Mexico		Lt. B. Couch, U. S. A.	Do.
2	Mouth of Yellowstone.		Dr. F. V. Hayden	Do.
2	Washington, D. C	—— —, 1877	Dr. T. H. Bean	Do.
6	Upper Mississippi and Yellowstone.		Dr. F. V. Hayden	Do.
1	Webster City, Iowa.	May —, 1878	Chas. Aldrich	Do.
2	Cairo, Ill		R. Kennicott	Do.
1	Camp Crittenden, Ariz.	Aug. —, 1874	J. H. Rutter	Do.
1	Lake Superior		R. Kennicott	Do.
1	Southern Illinois		do	Do.
157				

(460.) RANA HALECINA HALECINA (Kalm) Cope—Continued.

Holbrook, H. A. Herp., 1842, iv, 91.

GENERAL SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
12130	2	(?)		Col. M. McDonald	Alcoholic.
12081	2	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
12080	1	....do	Nov. —, 1881	....do	Do.
10312	5	Oakley, S. C	May —, 1879	F. W. Hayward	Do.
9423	1	(?)			Do.
5192	1	New Orleans, La		Dr. F. V. Hayden	Do.
3431	3	Saint Louis, Mo		Dr. Bibb	Do.
3455	2	Wisconsin		Rev. A. C. Barry	Do.
3448	2	Salem, N. C		J. T. Lineback	Do.
7831	10	(?)			Do.
3444	4	Missouri			Do.
3445	1	Tennessee		Prof. J. B. Mitchell	Do.
3447	4	Washington Co., Ill.		R. Kennicott	Do.
9455	1	(?)		F. V. Hayden	Do.
9427	1	Plaza del Alcalde, N. Mex.		Dr. H. C. Yarrow	Do.
3345	1	(?)		Dr. J. G. Cooper	Do.
9419	1	Southern Illinois		R. Kennicott	Do.
8970	1	(?)			Do.
	43				

(461.) RANA HALECINA BERLANDIERI (Kalm) Cope.

Baird, U. S. Mex. Bound. Surv. Repts., 1859, 27.

RESERVE SERIES.

3294	1	Albuquerque, N. Mex		Dr. C. B. R. Kennerly	Alcoholic.
3293	7	Brownsville, Texas		Capt. S. Van Vliet, U. S. A.	Do.
3298	1	....do		Lt. B. Couch, U. S. A.	Do.
3305	3	Leon River, Tex		Dr. C. B. R. Kennerly	Do.
3296	6	....do		....do	Do.
3303	4	Fort Inge, Tex		....do	Do.
3300	1	San Antonio, Tex			Do.
3295	3	Chacho Escondido		Lt. B. Couch, U. S. A.	Do.
3302	1	San Pedro Gila Riv., N. M.		J. H. Clark	Do.
8501	2	San Juan River, N. M.		Lt. R. Birnie, U. S. A.	Do.
8498	1	Taos, N. Mex		W. H. Shedd	Do.
8499	1	Abiquiu, N. Mex		Dr. O. Loew	Do.
3301	1	Salado River		A. Schott	Do.
8500	1	Santa Fé, N. Mex	Sept. —, 1874	Dr. O. Loew	Do.
5456	1	Fort Bridger, Wyo			Do.
3375	1	Fort Dallas, Tex		Dr. Geo. Suckley, U. S. A.	Do.
5273	1	Fort Buchanan, Ariz.		Dr. B. J. D. Irwin, U. S. A.	Do.
3356	1	Platte River, Nebr		W. S. Wood	Do.
3288	2	Red Bank Creek		H. B. Mollhausen	Do.
3342	5	Laramie River		W. S. Wood	Do.
9349	2	Fort Union, N. Mex.		H. B. Mollhausen	
3346	1	Salt Creek, Kans		W. S. Wood	Do.

RANA HALECINA BERLANDIERI (Kalm) Cope—Continued.

Baird, U. S. Mex. Bound. Surv. Repts., 1859, 27.

RESERVE SERIES.

No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
1	Between Fort Benton and Ft. Union, N. Mex.	.....	.....	Alcoholic.
1	Colorado River	.....	H. B. Mollhausen ..	Do.
1	Sand Hills, Nev	.....	Dr. F. V. Hayden ..	Do.
1	Medicine Cow Creek	.....	W. S. Wood	Do.
5	Yellowstone River ..	.....	Dr. F. V. Hayden ..	Do.
1	....do	.....	....do	Do.
1	South Fork	.....	....do	Do.
1	Salt Lake Valley, Utah.	.....	J. S. Browne	Do.
1	Fort Pierre, Nebr ...	.....	T. Culbertson	Do.
3	240 miles from Fort Kearney.	.....	W. S. Wood	Do.
4	Dunleith, Ill	.....	Dr. C. B. R. Kennerly	Do.
1	Valley of Mexico ...	.....	J. Potts	Do.
1	Headwaters of Trinity.	.....	Capt. John Pope, U. S. A.	Do.
1	Chihuahua, Mex	.....	Dr. C. B. R. Kennerly	Do.
11	Pole Creek of Platte	.....	W. S. Wood	Do.
1	Red River of North.	.....	R. Kennicott	Do.
1	Utah	—— —, 1872	Dr. H. C. Yarrow ...	Do.
1	Fort Garland, Col ..	.....	H. W. Henshaw ...	Do.
3	Taos, N. Mex	Aug. —, 1874	Dr. H. C. Yarrow ..	Do.
97				

GENERAL SERIES.

1	100 miles east of Fort Laramie.	.....	Dr. J. G. Cooper ...	Alcoholic.
6	Fort Kearney, Neb ..	.....	W. S. Wood	Do.
1	Pass Creek	.....	Dr. W. A. Hammond, U. S. A.	Do.
5	Cheyenne Pass	.....	W. S. Wood	Do.
6	Fort Bridger, Utah .	.....	C. Drexler	Do.
3	Platte Valley	.....	....do	Do.
3	East of Laramie	.....	Dr. W. A. Hammond, U. S. A.	Do.
6	Platte River, Nebr ..	.....	W. S. Wood	Do.
1	P. R. R. Survey	.....	Lt. A. W. Whipple, U. S. A.	Do.
1	Yellowstone	.....	Lieut. G. Warren, U. S. A.	Do.
5	Albuquerque, N. M ..	.....	Dr. C. B. R. Kennerly	Do.
1	Fort Bliss, N. Mex ..	.....	Dr. S. W. Crawford, U. S. A.	Do.
1	Nebraska	.....	.....	Do.
1	Live Oaks, Tex	.....	Maj. W. H. Emory, U. S. A.	Do.
1	Fort Dallas, Tex	.....	Dr. Geo. Suckley, U. S. A.	Do.
1	Utah	—— —, 1872	Dr. H. C. Yarrow ..	Do.
43				

(462.) RANA PALUSTRIS Le Conte.

Holbrook, N. A. Herp., 1842, iv, 95.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
3405	9	Carlisle, Pa		Prof. S. F. Baird	Alcoholic.
3412	10	do		do	Do.
3410	1	Meadville, Pa		do	Do.
3411	2	Philadelphia, Pa		J. H. Richard	Do.
3408	1	Framingham, Mass		Prof. S. F. Baird	Do.
3407	1	Washington County, Miss.		Col. B. L. C. Wailes	Do.
3400	1	Westport, N. Y		Prof. S. F. Baird	Do.
3403	1	Madrid, N. Y		Dr. P. R. Hoy	Do.
8345	1	Kinston, N. C		J. W. Milner	Do.
3402	4	Saint Louis, Mo		Dr. Geo. Englemann	Do.
3409	3	Root River, Wis	July —, 1853	Prof. S. F. Baird	Do.
3406	1	Detroit River, Mich	Aug. —, 1853	do	Do.
3401	3	Prairie Mer Rouge, La.		Jas. Fairie	Do.
9340	6	Pearl River, Miss		Miss Helen Tunnison.	Do.
8905	1	Bainbridge, Pa	April 12, 1877	Dr. T. H. Bean	Do.
5453	1	Toledo, Ohio		J. B. Trembly	Do.
3460	1	Tyree Springs, Tenn		Prof. R. Owen	Do.
3434	1	West Philadelphia, Pa.		W. S. Wood	Do.
9388	3	Upper Wisconsin R.		R. Kennicott	Do.
	51				

(463.) RANA SEPTENTRIONALIS Baird.

Baird, Proc. Acad. Nat. Sci. Phila., 1854, 61.

RESERVE SERIES.

3420	5	Garrison Creek		Prof. S. F. Baird	Alcoholic.
5366	2	Moose River, B. A.		C. Drexler	Do.
8101	2	Utah	—— —, 1872	Dr. H. C. Yarrow	Do.
3437	2	Red River of North		R. Kennicott	Do.
3360	1	Klamath Lake, Oreg		Dr. C. G. Newberry	Do.
3374	6	Petaluma, Cal		E. Samuels	Do.
9420	1	Puget's Sound, Oreg		Dr. C. B. R. Kennerly.	Do.
9421	1	do		do	Do.
	20				

(464.) RANA CLAMITANS Merrem.

Holbrook, N. A. Herp., 1842, iv, 85-87.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
3502	6	Pensacola, Fla		Dr. J. F. Hammond, U. S. A.	Alcoholic.
3466	7	Root R. Racine, Wis		Prof. S. F. Baird	Do.
3462	7	do		do	Do.
3478	8	Madison, Wis		do	Do.
3489	1	Fond du Lac, Wis		Rev. A. C. Barry	Do.
3473	4	Rochester, Wis		Prof. S. F. Baird	Do.
3483	2	Aztalan, Wis		do	Do.
3479	1	Waukesha, Wis		Rev. A. C. Barry	Do.
3469	5	Elizabethtown, N. Y.		Prof. S. F. Baird	Do.
3464	4	Westport, N. Y.		do	Do.
3488	5	Washington, D. C		J. H. Richard	Do.
3468	6	Carlisle, Pa		Prof. S. F. Baird	Do.
3477	1	do		do	Do.
3465	9	do		do	Do.
3475	2	Meadville, Pa		Prof. Williams	Do.
3543	1	do		J. F. Thickston	Do.
3472	3	Quebec, Canada		Prof. S. F. Baird	Do.
3498	2	Georgia		Maj. J. Le Conte	Do.
3487	2	Mount Holly, N. J		Prof. S. F. Baird	Do.
3541	1	Cumberland County, Md.		do	Do.
3486	1	Clark County, Va		Dr. C. B. R. Kennerly	Do.
3499	2	Prairie Mer Rouge, La.		Jas. Fairie	Do.
3501	2	Eutaw, Ala		Prof. A. Winchell	Do.
3470	5	Port Huron, Mich		Prof. S. F. Baird	Do.
3467	5	Detroit River, Mich		do	Do.
3500	4	Anderson, S. C		Miss C. Paine	Do.
3482	5	Kennebago, Me		Prof. C. Girard	Do.
3476	1	Portage Co., Ohio		Prof. S. F. Baird	Do.
3485	1	Columbus, Ohio		Prof. L. Lesquereux	Do.
3474	1	Highland Co., Ohio		Fred. Mather	Do.
8178	11	Union County, Ill		R. Kennicott	Do.
3435	1	Southern Illinois			Do.
3593	1	Weathersfield, Conn		C. Wright	Do.
3526	1	Salem, N. C		J. T. Lineback	Do.
3492	1	Aux Plaines Riv., Ill.		R. Kennicott	Do.
3493	1	Willow Creek, Wis		Rev. A. C. Barry	Do.
3503	8	Missouri		Dr. P. R. Hoy	Do.
3524	4	Southern Illinois		R. Kennicott	Do.
9468	1	Ferry Landing, Va	May —, 1875	H. W. Henshaw	Do.
9732	6	Southern Illinois		R. Kennicott	Do.
	139				

GENERAL SERIES.

3465	5	Carlisle, Pa		Prof. S. F. Baird	Alcoholic.
3469	2	Elizabethtown, N. Y		do	Do.
	7				

(465.) RANA CATESBIANA Shaw.

Holbrook, N. A. Herp., 1842, iv, 77.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
3532	1	Carlisle, Pa		Prof. S. F. Baird	Alcoholic.
3521	1	Meadville, Pa		J. F. Thickston	Do.
3513	1	Lancaster Co., Pa		Prof. S. F. Baird	Do.
3531	3	Foxburg, Pa		Shaw	Do.
4835	1	Brookville, Pa		Dr. R. Haymond	Do.
3337	1	Red River, Ark		Capt. R. B. Marcy, U. S. A.	Do.
3321	2	Fort Smith, Ark		Dr. B. F. Shumard	Do.
3539	1	Prairie Mer Rouge, La.		Jas. Fairie	Do.
3510	1	Saint Louis, Mo		Dr. G. Englemann	Do.
3512	1	Riceboro', Ga		Prof. S. F. Baird	Do.
3514	1	Racine, Wis		do	Do.
3688	3	Pensacola, Fla		Dr. R. W. Jeffrey	Do.
5917	1	Micanopy, Fla		Dr. T. H. Bean	Do.
3691	1	Tarboro', N. C		J. L. Bridger	Do.
8346	2				Do.
5508	1	Charleston, S. C		Prof. S. F. Baird	Do.
3340	1	San Diego, Cal		Lt. B. Couch, U.S.A.	Do.
3534	3	Seneca Lake, N. Y			Do.
3507	4	Elizabethtown, N.Y.			Do.
3533	3	Westport, N. Y		Prof. S. F. Baird	Do.
3538	1	Columbus, Ohio		Prof. L. Lesquereux	Do.
3711	1	Marietta, Ohio		Prof. E. B. Andrews	Do.
3508	1	Elyria, Ohio		Prof. S. F. Baird	Do.
3687	1	Mobile, Ala		Pilchody	Do.
3690	2	Western Missouri		Dr. P. R. Hoy	Do.
3338	1	Goat Creek		H. B. Mollhausen	Do.
3336	1	Shawnee Village		do	Do.
9392	2	Shawnee Mission		Dr. J. G. Cooper	Do.
9393	1	Monticello, Miss		Miss Helen Tunnison	Do.
3331	3	Sibley Lake		W. S. Wood	Do.
3332	1	Saint Louis, Mo		do	Do.
3529	1	Tyree Springs, Tenn.		Prof. R. Owen	Do.
3350	1	Yellowstone River		Dr. F. V. Hayden	Do.
9469	1	New Orleans, La	May 29, 1875	N. O. Academy	Do.
12069	1	Mount Carmel, Ill	Nov. —, 1881	L. M. Turner	Do.
9475	1	St. John's River, Fla.	—— —, 1874	G. Brown Goode	Do.
3509	1	Black R., Elyria, Ohio		Prof. S. F. Baird	Do.
10880	1	Oakley, S. C		F. W. Hayward	Do.
	55				

GENERAL SERIES.

10880	57	Oakley, S. C		F. W. Hayward	Alcoholic.

(466.) RANA TEMPORARIA AURORA (Linn.) Cope.

Baird & Girard, U. S. Expl. Ex. Herp., 1858, 18.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
3354	1	Presidio, Cal		Lieut. W. P. Trowbridge, U. S. A.	Alcoholic.
3371	1	Columbia River		Ex. Expedition	Do.
5145	2	Red River of North		R. Kennicott	Do.
9467	1	Puget Sound, Oreg		Dr. C. B. R. Kennerly	Do.
8679	1	Santa Barbara, Cal	July —, 1876	H. W. Henshaw	Do.
8700	1	Fort Tejon, Cal	Aug. —, 1875	do	Do.
3377	2	Astoria, Oreg		Lieut. W. P. Trowbridge, U. S. A.	Do.
	9				

(467.) RANA TEMPORARIA SILVATICA (Linn.) Cope.

Holbrook, N. A. Herp., 1842, iv, 99.

RESERVE SERIES.

3393	4	Westport, N. Y		Prof. S. F. Baird	Alcoholic.
3388	1	Quebec, Canada		do	Do.
3397	1	Anderson, S. C		Miss G. Paine	Do.
3385	1	Racine, Wis		Dr. P. R. Hoy	Do.
3392	1	Clark County, Va		R. Kennicott	Do.
3399	1	Carlisle, Pa		Prof. S. F. Baird	Do.
3398	3	Yellow Creek, Ohio		do	Do.
5452	1	Toledo, Ohio		J. B. Trembley	Do.
3390	1	Carlisle, Pa		Prof. S. F. Baird	Do.
3384	1	do		do	Larvæ.
3387	1	do		do	Alcoholic.
5373	1	South of Highlands		C. Drexler	Do.
9387	1	Upper Wisconsin R.		R. Kennicott	Do.
3454	10	North Red River		do	Do.
5937	8	James Bay, B. A		C. Drexler	Do.
5447	3	Lake Superior		Barnabuls	Do.
5925	1	Fort Simpson		R. Kennicott	Do.
8377	1	Scarborough, Me		U. S. F. C.	Do.
5381	1	Selkirk Settlement			Do.
9383	10	Lake Superior		R. Kennicott	Do.
9384	1	Athabasca River			Do.
7836	1	Washington, D. C		Dr. E. Cones, U.S.A.	Do.
3735	1	Ogdensburg, N. Y			Do.
5417	2	Illinois		R. Kennicott	Do.
5929	1	British America		do	Do.
5922	1	Moose River, B. A		C. Drexler	Do.
5364	3	Welthy River		R. Kennicott	Do.
9668	1	Prince George's Co., Md.	May —, 1878	Dr. T. H. Bean	Do.
	63				

(468.) RANA TEMPORARIA CANTABRIGENSIS (Linn.) Cope.

Baird, Proc. Acad. Nat. Sci., Phila., 1854, 61.

RESERVE SERIES.

Catalogue number.	No. of spec.	Locality.	When collected.	From whom received.	Nature of specimen.
3457	4	Western Missouri...	.....	Dr. P. R. Hoy	Alcoholic.
3453	1	Saint Louis, Mo	.....	Dr. G. Englemann ..	Do.
3458	5	Lake Winniebigoshish, Minn.	.....	B. F. Odell	Do.
					Do.
5386	5	James Bay, B. A....	.....	C. Drexler	Do.
5924	6	Fort Resolution	.....	R. Kennicott	Do.
4824	1	St. Catharines, Can.	.....	Dr. D. W. Beadle ...	Do.
5365	2	Moose River, B. A ..	.....	C. Drexler	Do.
9385	2	St. Catharines, Canada.	.....	Dr. D. W. Beadle ...	Do.
3456	5	Red River of North.	.....	R. Kennicott	Do.
5922	2	Moose Island, B. A..	.....	C. Drexler	Do.
	33				

(469.) RANA PRETIOSA Baird.

Girard, U. S. Expl. Ex. Herp., 1858, 20.

8683	7	Southern California.	—— —, 1875	H. W. Henshaw	Alcoholic.
8687	4	Nevada	Oct. —, 1875	....do	Do.
11409	4	Puget Sound, Oreg .	.....	U. S. Exp. Ex	Do.
8685	3	Lake Tahoe, Nev ...	Oct. —, 1876	H. W. Henshaw ...	Do.
	18				

NOTE.—It should be understood that the foregoing catalogue is simply provisional, representing the specimens on hand at this time, as additions are being constantly made whenever opportunity offers.

H. C. YARROW,

Honorary Curator, Department Reptiles.

LIST OF SPECIMENS DESIRED BY THE NATIONAL MUSEUM.

NOTE.—Some of the species enumerated in the following list are now possessed by the National Museum, but other specimens are needed, either because an increase in number is deemed advisable, or owing to imperfect examples. The species in the collection are indicated by a star (*), and the numbers correspond with those of the Check-List. The names for which authorities are given are most earnestly desired, as they are not in the collection of the National Museum.

2. **CROCODILUS AMERICANUS** SEBA.*
Habitat, Floridian district.

5. **THALASSOCHELYS KEMPI** GARMAN.
Garman, Bull. Muse. Comp. Zool. 1880, vi, 123.
Habitat, Florida.

6. **ERETMOCHELYS IMBRICATA** (LINN.) AGASSIZ.
Agassiz, Cont. Nat. Hist. U. S. 1857, i, 381.
Habitat, Southern Atlantic coast.

9. **CHELONIA VIRGATA** SCHWEIGGER.*
Habitat, Pacific coast.

13. **ASPIDONECTES ASPER** AGASSIZ.
Agassiz, Cont. Nat. Hist. U. S., 1857, i, 405.
Habitat, Lower tributaries of Mississippi River.

14. **ASPIDONECTES NUCHALIS** AGASSIZ.
Agassiz, Cont. Nat. Hist. U. S., 1857, i, 406.

21. **CINOSTERNUM PENNSYLVANICUM DOUBLEDAYI** (GRAY) COPE.
Gray, Cat. Tort. Croc. and Amphis., Brit. Mus., 1844, 33.
Habitat, Southwestern United States.

24. **CINOSTERNUM HENRICI** LE CONTE.*
Habitat, Sonoran subregion.

27. **PSEUDEMYS MOBILENSIS** HOLBROOK.*
Habitat, Florida to Rio Grande, Texas.

28. **PSEUDEMYS HIEROGLYPHICA** HOLBROOK.
Holbrook, N. A. Herp. 1842, i, 111.
Habitat, Middle, Western, and Gulf States.

30. **PSEUDEMYS TROOSTI** (HOLBROOK) COPE.*
Habitat, Valley of the Mississippi to Illinois.

32. **PSEUDEMYS ORNATA** GRAY.
Habitat, Sonoran region.

57. **EUMECES EGREGIUS** BAIRD.*
Habitat, Florida.

58. **EUMECES ONOCREPIS** COPE.
Cope, Rep. Peabody Academy, Salem, 1869–'82.
Habitat, Florida.

59. **EUMECES TETRAGRAMMUS** BAIRD.*
Habitat, Lower Rio Grande.

60. **EUMECES BREVILINEATUS** COPE.
Cope, Bull. U. S. Nat. Mus., 1880, 17, 19.
Habitat, Texas.

61. **EUMECES ANTHRACINUS** BAIRD.*
Habitat, Mountain regions, Pennsylvania to Texas.

62. **EUMECES PACHYURUS** COPE.
Cope, Bull. U. S. Nat. Mus., 1880, 17, 19.
Habitat, Texas.

63. **EUMECES PLUVIALIS** COPE.
Cope, Proc. Am. Philos. Soc., 1877–'63.
Habitat, Texas.

64. **EUMECES INORNATUS** BAIRD.*
Habitat, Nebraska.

66. **EUMECES LEPTOGRAMMUS** BAIRD.*
Habitat, Central region.

71. **EUMECES LONGIROSTRIS** COPE.*
Habitat, Bermuda Islands.

72. **XANTUSIA VIGILIS** BAIRD.*
Habitat, Pacific subregion.

73. **CNEMIDOPHORUS MAXIMUS** COPE.*
Habitat, Lower California.

76. **CNEMIDOPHORUS INORNATUS** BAIRD.
Baird, Proc. Acad. Nat. Sci. Phila., 1858, 255.
Habitat, Southern Sonoran region.

77. **CNEMIDOPHORUS OCTOLINEATUS** BAIRD.
Baird, Proc. Acad. Nat. Sci. Phila., 1858, 255.
Habitat, Southern Sonoran region.

79. **CNEMIDOPHORUS TESSELLATUS TESSELLATUS** (SAY) COPE.*
Habitat, Southern Colorado.

81. **CNEMIDOPHORUS TESSELLATUS MELANOSTETHUS** (SAY) COPE.*
Habitat, Southeast Arizona.

85. **BARISSIA OLIVACEA** BAIRD.*
Habitat, Lower California and Mexico.

87. **GERRHONOTUS PRINCIPIS** BAIRD and GIRARD.*
Habitat, Northern Pacific region.

91. **GERRHONOTUS INFERNALIS** BAIRD and GIRARD.*
Habitat, Western Texas.

95. **HOLBROOKIA MACULATA APPROXIMANS** (GIRARD) COPE.
Habitat, Sonoran region.

97. **HOLBROOKIA LACERATA** COPE.
Cope, Bull. U. S. Nat. Mus., 1880, 15, 17.

98. **CALLISAURUS DRACONTOIDES DRACONTOIDES** (BLAINV.) COPE.*
Habitat, Southern Lower California.

0. **CALLISAURUS DRACONTOIDES GABBI** (BLAINV.) COPE.
Cope, MSS.
Habitat, Southern Lower California.

1. **UMA NOTATA** BAIRD.*
Habitat, Sonoran region.

2. **CROTAPHYTUS RETICULATUS** BAIRD.*
Habitat, Western Texas.

3. **UTA THALASSINA** COPE.*
Habitat, Lower California.

4. **SCELOPORUS ORNATUS** BAIRD.*
Habitat, Southeastern Sonoran region.

5. **SCELOPORUS COUCHI** BAIRD.*
Habitat, Southern Sonoran region.

6. **SCELOPORUS MARMORATUS** HALLOWELL.*
Habitat, Sonoran region, Utah.

7. **SCELOPORUS BISERIATUS** HALLOWELL.*
Habitat. ?

8. **SCELOPORUS CONSOBRINUS GRATIOSUS** (BAIRD and GIRARD) COPE.*
Habitat, Sonoran and central regions, Oregon and Texas.

9. **SCELOPORUS TRISTICHUS** COPE.*
Habitat, Arizona.

0. **SCELOPORUS UTIFORMIS** COPE.*
Habitat, Mexico.

1. **SCELOPORUS SCALARIS** WIEGMANN.*
Habitat, Sonora.

2. **SCELOPORUS FLORIDANUS** BAIRD.*
Habitat, Florida.

3. **SCELOPORUS CLARKI ZOSTEROMUS** (BAIRD and GIRARD) COPE.*
Habitat, Lower California.

4. **PHRYNOSOMA ASIO** COPE.*
Habitat, Lower California and Mexico.

5. **CYCLURA HEMILOPHA** COPE.*
Habitat, Lower California.

6. **ANOLIS COOPERI** BAIRD.*
Habitat, ? California.

7. **SPHÆRODACTYLUS NOTATUS** BAIRD.*
Habitat, Key West, Florida, (Cuba).

8. **PHYLLODACTYLUS TUBERCULOSUS** WIEGMANN.
Habitat, Sonoran region.

9. **PHYLLODACTYLUS XANTI** COPE.
Habitat, Lower California.

0. **APLOASPIS LEPIDA** KENNICOTT.
Kennicott, Proc. Acad. Nat. Sci. Phila., 1861, 206.
Habitat, Western Texas.

1. **CROTALUS MITCHELLI** COPE.*
Habitat, Lower California.

[illegible] **[illegible]** Cope.*
Habitat, [illegible].

[illegible] **[illegible]** [illegible]
[illegible]
Habitat, [illegible].

[illegible] **[illegible]** [illegible]
Habitat, Kentucky and North Carolina.

[illegible] **[illegible]** [illegible]
Habitat, Lower California.

[illegible] **[illegible]** [illegible]*
Habitat, [illegible].

[illegible] **[illegible]** [illegible]*
Habitat, [illegible].

[illegible] **[illegible]** [illegible]*
Habitat, [illegible].

[illegible] **[illegible]** [illegible] Cope.
Habitat, Chihuahua, Lower Arizona.

[illegible] **CINTIA EPISCOPA TORQUATA** Kennicott, Cope.
[illegible]
Habitat, Texas.

[illegible] **CINTIA VYGEA** Cope.
Cope, Proc. Acad. Nat. Sci. Phila., 1871, 222.
Habitat, Florida.

[illegible] **[illegible] HEMIANNULATA** Baird and Girard.*
Habitat, Sonora.

[illegible] **[illegible] TENUIS** Baird and Girard.*
Habitat, Washington Territory.

[illegible] **OPHIBOLUS DOLIATUS AMAURUS** (Linn.) Cope.
Cope, Proc. Acad. Nat. Sci. Phila., 1860, 256.
Habitat, unknown.

[illegible] **OPHIBOLUS MULTISTRATUS** Kennicott.
Kennicott, Proc. Acad. Nat. Sci. Phila., 1860, 328.
Habitat, Nebraska.

[illegible] **OPHIBOLUS CALIFORNIÆ** Blainville.
Baird and Girard, Cat. N. A. Serp., 1853, 153.
Habitat, Lower California.

[illegible] **DIADOPHIS PUNCTATUS STICTOGENYS** (Linn.) Cope.
Cope, Proc. Acad. Nat. Sci. Phila., 1860, 250.
Habitat, Texas.

[illegible] **DIADOPHIS DYSOPES** Cope.
Cope, Proc. Acad. Nat. Sci. Phila., 1860, 231.
Habitat, unknown.

[illegible] **CONIOPHANES IMPERIALIS** Girard.
Habitat, Chihuahua.

[illegible] **HYPNIOLENA OCHRORHYNCHA CHLOROPHÆA** Cope.*
Habitat, Arizona.

245. **PHIMOTHYRA GRAHAMI HEXALEPIS** (BAIRD and GIRARD) COPE.
Cope, Proc. Acad. Nat. Sci. Phila., 1866, 304.
Habitat, unknown.

246. **PHIMOTHYRA DECURTATA** COPE.*
Habitat, Lower California.

247. **DROMICUS FLAVILATUS** COPE.
Cope, Proc. Acad. Nat. Sci. Phila., 1871, 222.
Habitat, coast of North Carolina and Florida.

257. **COLUBER BAIRDI** YARROW.*
Habitat, Western Texas.

263. **PITYOPHIS VERTEBRALIS** BLAINVILLE.*
Habitat, Lower California.

267. **BASCANIUM ANTHICUM** COPE.
Cope, Proc. Acad. Nat. Sci. Phila., 1862, 338.
Habitat, Louisiana. (?)

274. **BASCANIUM AURIGULUM** COPE.*
Habitat, Lower California.

275. **CHILOPOMA RUFOPUNCTATUM** COPE.*
Habitat, Sonoran district.

286. **EUTÆNIA VAGRANS ANGUSTIROSTRIS** (BAIRD and GIRARD) COPE.*
Habitat, Southern Sonoran region.

289. **EUTÆNIA CYRTOPSIS OCELLATUS** (KENNICOTT) COPE.*
Habitat, Lower California and Sonoran region.

297. **EUTÆNIA SIRTALIS TETRATÆNIA** (LINN.) COPE.*
Habitat, Pitt River, California.

305. **TROPIDOCLONIUM STORERIOÏDES** COPE.*
Cope, Proc. Acad. Nat. Sci. Phila., 1865, 190.
Habitat, Plateau of Mexico.

314. **TROPIDONOTUS VALIDUS TEPHROPLEURA** (KENNICOTT) YARROW.*
Habitat, Lower California, Mexico.

315. **TROPIDONOTUS COMPSOLÆMUS** COPE.*
Cope, Proc. Acad. Nat. Sci. Phila., 1860, 368.
Habitat, Florida.

316. **TROPIDONOTUS COMPRESSICAUDUS** KENNICOTT.*
Habitat, Florida.

317. **TROPIDONOTUS USTUS** COPE.*
Habitat, Florida.

326. **HELICOPS ALLENI** GARMAN.
Garman, Proc. Bost. Soc. Nat. Hist., 1874, 92.

333. **CHARINA BOTTÆ** BLAINVILLE.
Blainville, Nouv. Ann. Mus. Hist. Nat., 1835, iv, 289.
Habitat, Lower California region.

336. **LICHANURA MYRIOLEPIS** COPE.*
Cope, Proc. Acad. Nat. Sci. Phila., 1868, 2.
Habitat, Lower California.

737. **LICHANURA ROSEIFUSCA** COPE.
Cope, Proc. Acad. Nat. Sci. Phila., 1868, 2.
Habitat, Lower California.

343. **NECTURUS PUNCTATUS** GIBBES.*
Habitat, Eastern South Carolina.

352. **AMBLYSTOMA BICOLOR** HALLOWELL.*
Habitat, New Jersey.

355. **AMBLYSTOMA MAVORTIUM CALIFORNIENSE** (BAIRD) COPE.*
Habitat, Pacific region.

356. **AMBLYSTOMA OBSCURUM** BAIRD.
Cope, Proc. Acad. Nat. Sci. Phila., 1867, 192.
Habitat, Iowa.

357. **AMBLYSTOMA XIPHIAS** COPE.
Cope, Proc. Acad. Nat. Sci. Phila., 1867, 192.
Habitat, Ohio.

360. **AMBLYSTOMA JEFFERSONIANUM LATERALE** (GREEN) COPE.*
Habitat, Canada and Wisconsin, and northward.

361. **AMBLYSTOMA JEFFERSONIANUM FUSCUM** (GREEN) COPE.*
Habitat, Indiana and Virginia.

365. **AMBLYSTOMA ATERRIMUM** COPE.*
Habitat, Northern Rocky Mountains.

367. **AMBLYSTOMA TEXANUM** MATTHES.
Cope, Proc. Acad. Nat. Sci. Phila., 1867, 204.
Habitat, Texas.

368. **AMBLYSTOMA CINGULATUM** COPE.
Cope, Proc. Acad. Nat. Sci. Phila., 205.
Habitat, South Carolina.

370. **DICAMPTODON ENSATUS** ESCHSCHOLZ.
Eschscholz, Zool. Atlas, pt. v, 6, pl. xxii.
Habitat, Pacific region.

377. **PLETHODON CINEREUS DORSALIS** (GREEN) COPE.
Baird MSS.
Habitat, Louisville, Ky.; Salem, Mass.

378. **PLETHODON INTERMEDIUS** BAIRD.*
Habitat, Vancouver's Island.

380. **PLETHODON OREGONENSIS** GIRARD.*
Habitat, Pacific region.

381. **PLETHODON FLAVIPUNCTATUS** STRAUCH.
Strauch, Mem. Acad. Sci. St. Petersb., 1871, xvi, 71.
Habitat, ? New Albion, Cal.

382. **PLETHODON CROCEATER** COPE.
Cope, Proc. Acad. Nat. Sci. Phila., 1867, 210.
Habitat, Lower California.

383. **STEREOCHILUS MARGINATUM** HALLOWELL.
Cope, Proc. Acad. Nat. Sci. Phila., 1869, 101.
Habitat, Georgia.

384. **MANCULUS REMIFER** COPE.
Cope, Rep. Peabody Acad., Salem, 1869, 84.
Habitat, Florida.

385. **MANCULUS QUADRIDIGITATUS** HOLBROOK.*
Habitat, North Carolina to Florida.

386. **SPELERPES MULTIPLICATUS** COPE.*
Habitat, Arkansas.

391. **SPELERPES RUBER STICTICEPS** (DAUDIN) COPE.*
Baird MSS.
Habitat, South Carolina.

395. **ANAIDES FERREUS** COPE.*
Habitat, Oregon.

403. **DIEMYCTYLUS MINIATUS MERIDIONALIS** (RAFINESQUE) COPE.
Cope, Bull. U. S. Nat. Mus., 1880, 17, 30.
Habitat, Eastern and Austroriparian region.

410. **BUFO ALVARIUS** GIRARD.
Girard, U. S. Mex. Bound. Surv. Repts., 1859, ii, 26.
Habitat, Sonoran region.

412. **BUFO PICTUS** COPE.*
Habitat, Arizona, Utah, New Mexico.

425. **CHOROPHILUS TRISERIATUS CLARKI** (PR. MAX. WIED.) COPE.*
Habitat, Texan district.

426. **CHOROPHILUS TRISERIATUS CORPORALIS** (PR. MAX. WIED.) COPE.
Cope MSS.
Habitat, New Jersey.

428. **CHOROPHILUS ANGULATUS** COPE.
Holbrook, N. A. Herp., 1842, iv, 137.
Habitat, South Carolina.

431. **HYLA CURTA** COPE.*
Habitat, Lower California region.

434. **HYLA ANDERSONI** BAIRD.*
Habitat, New Jersey to South Carolina.

442. **HYLA CADAVERINA** COPE.*
Habitat, Pacific region.

444. **SMILISCA BAUDINI** DUMÉRIL.
Habitat, Lower Rio Grande, Mexico.

445. **LITHODYTES RICORDI** DUMÉRIL and BIBRON.*
Cope, Proc. Acad. Nat. Sci. Phila., 1862, 153.
Habitat, Southern Florida (Bahamas; Cuba).

447. **SYRRHOPUS MARNOCKI** COPE.
Cope, Bull. U. S. Nat. Mus., 1880, 17, 26.
Habitat, Texas.

450. **SPEA HAMMONDI** BAIRD.*
Habitat, Pacific region to San Diego.

451. **SPEA MULTIPLICATA** COPE.*
Habitat, Near City of Mexico.

454. **SCAPHIOPUS VARIUS RECTIFRENIS** COPE
Cope, Proc. Acad. Nat. Sci. Phila., 1863, 53.
Habitat, Lower California.

INDEX TO GENERIC AND SPECIFIC NAMES OF REPTILIA AND BATRACHIA.

Page.

A.

Abastor erythrogrammus 13, 85
Acris gryllus crepitans 23, 169
gryllus gryllus 23, 169
Alligator mississippiensis 5, 27
Amblystoma aterrimum 21, 152, 192
bicolor 20, 148, 192
cingulatum 21, 192
conspersum 20, 148
jeffersonianum fuscum 21, 151, 192
jeffersonianum jeffersonianum 20, 150
jeffersonianum laterale 21, 150, 192
jeffersonianum platineum 21, 151
macrodactylum 21, 151
mavortium 20, 149
mavortium californiense 20, 150. 192
microstomum 21, 152
obscurum 20, 192
opacum 20, 147
paroticum 21, 151
punctatum 20, 147
talpoideum 20, 146
tenebrosum 21, 152
texanum 21, 192
tigrinum 20, 148
trisruptum 20, 150
xiphias 20, 192
Amphiuma means 20, 145
Amyda 26
mutica 5, 28
Anaides ferreus 22, 159, 193
lugubris 22, 158
Ancistrodon atrofuscus 13, 190
contortrix 12, 80
piscivorus piscivorus .. 12, 79
piscivorus pugnax 12, 80
Aniella pulchra 7, 39
Anolis cooperi 11, 72, 189
principalis 11, 71, 72
Aploaspis lepida 12, 189
Aromochelys carinata 6, 30

Page.

Aromochelys odorata 5, 30
Aspidonectes asper 5, 187
emoryi 5, 29
ferox 5, 29
nuchalis 5, 187
spinifer 5, 29

B.

Barissia olivacea 8, 46, 188
Bascanium anthicum 16, 191
aurigulum 17, 113, 191
constrictor 16, 108, 109, 110
constrictor flaviventris. 16, 110
flagelliforme flagelliforme 16, 111
flagelliforme piceum ... 16, 111
flagelliforme testaceum 17, 111, 112
tæniatum laterale 17, 113
tæniatum ornatum 17, 113
tæniatum tæniatum 17, 112
Batrachoseps attenuatus 21, 152
nigriventris 21, 153
pacificus 21, 153
Bufo alvarius 23, 193
beldingi 23, 163
columbiensis 23, 163
copeii 23, 163
debilis 22, 162
halophilus 23, 162
lentiginosus americanus .. 23, 166, 167
lentiginosus cognatus 23, 165
lentiginosus fowleri 23, 167
lentiginosus frontosus 23, 165
lentiginosus lentiginosus. 23, 164, 165
microscaphus 23, 163
pictus 23, 164, 193
punctatus 22, 162
quercicus 23, 168
speciosus 23, 164
valliceps 23, 168

C.

Callisaurus dracontoides dracontoides 9, 50, 188
dracontoides gabbi 9, 189
dracontoides ventralis. 9, 51

Page.
Carphophiops amœnus 13, 83
heleuæ 13, 82
vermis 13, 83
Caudisona edwardsi 12, 78
tergemina 12, 79
miliaria 12, 78
rava 12, 190
Cemophora coccinea 14, 88
Charina bottæ 19, 191
plumbea 19
Chelonia mydas 5, 28
virgata 5, 28, 187
Chelopus anonymus 26
guttatus 7, 26, 36
insculptus 7, 36
marmoratus 7, 36
muhlenbergi 7, 36
Chelydra serpentina 5, 30
Chilomeniscus cinctus 13, 86, 190
ephippicus 13, 86
stramineus 13, 86
Chilopoma rufopunctatum 17, 113, 191
Chionactis occipitalis 13, 86, 190
occipitalis annulata. 14, 86, 190
Chirotes canaliculatus 7, 38
Chorophilus angulatus 23, 193
nigritus 23, 170
ocularis 24, 170
ornatus 24, 171
triseriatus clarki 23, 170, 193
triseriatus corporalis. 23, 193
triseriatus triseriatus. 23, 170
Chrysemys belli 6, 26, 35
dorsalis 6, 26, 35
marginata 6, 26, 35
oregonensis 26
picta 6, 34
reticulata 6, 35
Cinosternum flavescens 6, 31
henrici 6, 31, 187
pennsylvanicum doubledayi 6, 187
pennsylvanicum 26
pennsylvanicum pennsylvanicum 6, 31
sonoriense 6, 31
Cistudo carolina 7, 26, 37
carolina triunguis 7, 37
ornata 7, 37
Cnemidophorus grahami 8, 43
inornatus 8, 188
maximus 8, 42, 188
octolineatus 8, 188
perplexus 8, 44
sexlineatus 8, 43, 44
Page.
Cnemidophorus tessellatus gracilis 8, 45
tessellatus melanostethus 8, 45, 188
tessellatus tessellatus 8, 44, 188
tesselatus tigris 8, 45
Coleonyx variegatus 11, 72
Coluber bairdi 16, 104, 191
emoryi 16, 101
guttatus 16, 103
lindheimeri 16, 101
obsoletus confinis 16, 103
obsoletus obsoletus 16, 102
quadrivittatus 16, 102
vulpinus 16, 101
Coniophanes imperialis 15, 97, 190
Contia episcopa episcopa 14, 87
episcopa isozona 14, 87
episcopa torquata 14, 190
mitis 14, 87
pygæa 14, 190
Crocodilus americanus 5, 27, 187
Crotalus adamanteus adamanteus. 12, 75
adamanteus atrox 12, 75, 76
adamanteus scutulatus 12, 76
cerastes 12, 73
confluentus 12, 77
enyo 12, 74
horridus 12, 74
lucifer 12, 76
mitchelli 12, 73, 189
molossus 12, 78
polystictus 12, 77, 190
pyrrhus 12, 73
tigris 12, 74
Crotaphytus collaris 9, 52
copeii 9, 53
reticulatus 9, 54, 189
wislizeni 9, 53
Cyclophis æstivus 16, 100
vernalis 16, 99
Cyclura acanthura 11, 71
hemilopha 11, 71, 189
teres 11, 71

D.

Dermatochelys 26
Dermochelys 26
coriacea 5, 27
Desmognathus fuscus auriculata .. 22, 160
fusca fusca 22, 159
ochrophæa 22, 159
nigra 22, 160
Diadophis arnyi 15, 96
dysopes 15, 190

Page.
adophis punctatus amabilis..15, 95, 96
punctatus pulchellus... 15, 96
punctatus punctatus... 15, 95
punctatus stictogenys..15, 190
regalis..... 15, 97
camptodon ensatus.....21, 192
emyctylus miniatus meridionalis.22, 193
miniatus miniatus....22, 161
miniatus viridescens..22, 161
torosus.....22, 160
plodactylus unctus..... 12, 73
psosaurus dorsalis..... 9, 54
omicus flavilatus.....15, 191

E.

aps distans..... 13, 82
euryxanthus..... 13, 82
fulvius fulvius..... 13, 81
fulvius tener..... 13, 81
tristis..... 13, 82
ıys meleagris..... 7, 37
gystoma carolinense.....23, 168
irhexis longipes.....24, 176
etmochelys..... 26
imbricata..... 5, 187
squamata..... 5, 28
meces anthracinus..... 7, 188
brevilineatus..... 7, 188
egregius..... 7, 187
fasciatus.....8, 41, 42
guttulatus..... 8, 41
inornatus..... 8, 188
leptogrammus.....8, 40, 188
longirostris.....8, 42, 188
multivirgatus..... 8, 40
obsoletus..... 8, 40
onocrepis..... 7, 188
pachyurus..... 7, 188
pluvialis..... 7, 188
septentrionalis..... 7, 40
skiltonianus..... 8, 41
tetragrammus..... 7, 188
tænia atrata.....18, 128
cooperi.....18, 128
cyrtopsis.....17, 121
cyrtopsis ocellatus...17, 121, 191
elegans.....17, 121
faireyi.....17, 115
hammondi.....17, 117
macrostemma megalops..17, 117
marciana.....17, 118
ornata.....17, 122
phenax.....18, 128
proxima.....17, 115, 116
radix.....17, 116

Page.
Eutænia radix twiningi.....17, 117
sackeni.....17, 114
saurita.....17, 114
scalaris.....18, 128
sirtalis dorsalis.....18, 124
sirtalis obscura.....18, 126, 127
sirtalis ordinata.....18, 125
sirtalis parietalis.... 18, 125, 126
sirtalis pickeringi.....18, 127
sirtalis sirtalis...17, 122, 123, 124
sirtalis tetratænia... 18, 128, 191
sumichrasti.....18, 129
vagrans angustirostris.17, 120, 191
vagrans vagrans.....17, 119, 120

F.

Farancia abacura..... 13, 85

G.

Gerrhonotus grandis..... 9, 47
infernalis.....9, 48, 188
multicarinatus..... 9, 47
nobilis..... 8, 47
principis.....9, 47, 188
scincicaudus..... 9, 48
Gyalopium canum..... 14, 88
Gyrinophilus porphyriticus.....22, 158

H.

Haldea striatula..... 13, 84
Helicops alleni.....19, 191
Heloderma suspectum..... 9, 48
Hemidactylum scutatum.....21, 153
Heterodon platyrhinus atmodes...19, 139
platyrhinus niger.....19, 140
platyrhinus platyrhinus
19, 138, 139
simus kennerlyi.....19, 141
simus nasicus.....19, 140, 141
simus simus.....19, 140
Holbrookia lacerata..... 9, 188
maculata approximans. 9, 188
maculata maculata.... 9, 49
maculata propinqua... 9, 50
texana..... 9, 50
Hyla andersoni.....24, 172, 193
arenicolor.....24, 175
cadaverina.....24, 176, 193
carolinensis.....24, 173
carolinensis semifasciata.....24, 173
curta..... 24, 171, 193
eximia.....24, 172
femoralis.....24, 174
gratiosa.....24, 176
pickeringi.....24, 174
regilla.....24, 171, 172

Page.
Hyla squirella 24, 173
versicolor 24, 174, 175
Hypsiglena ochrorhyncha 15, 97
ochrorhyncha chlorophæa 15, 97, 190

L.

Lichanura myriolepis 19, 191
roseifusca 19, 191
trivirgata 19
Lithodytes latrans 24, 176
ricordi 24, 193
Lodia tenuis 14, 87, 190

M.

Macrochelys 26
lacertina 5, 30
Macroclemys 26
Macroclemmys 26
Malaclemys 26
Malaclemmys 26
Malacoclemmys 26
geographicus 6, 33
le sueuri 6, 26, 34
palustris 6, 34
Manculus remifer 22, 192
quadridigitatus 22, 156, 192
Menopoma allegheniense 20, 146
fuscum 20, 146
Murænopsis tridactylus 20, 145

N.

Necturus lateralis 20, 144
punctatus 20, 145, 192

O.

Oligosoma laterale 7, 39
Ophibolus californiæ 15, 190
calligaster 15, 94
doliatus amaurus 14, 190
doliatus annulatus 14, 90
doliatus coccineus 14, 90
doliatus doliatus 14, 89
doliatus gentilis 14, 90
doliatus triangulus 14, 90, 91
getulus boyli 14, 92
getulus eiseni 15, 94
getulus getulus 14, 91, 92
getulus multicinctus 15, 94
getulus niger 15, 93
getulus sayi 15, 93
getulus splendidus 14, 93
multistratus 14, 190
pyrrhomelas 14, 91
rhombomaculatus 15, 94

Page.
Opheosaurus ventralis 8, 46
Osceola elapsoidea 14, 89

P.

Phimothyra decurtata 15, 99, 191
grahami 15, 98
grahami hexalepis 15, 191
Phrynosoma asio 11, 67, 189
blainvilleii 11, 70
cornutum 11, 66, 67
coronatum 11, 70
douglassi douglassi 11, 68, 69
douglassi ornatissimum 11, 69
douglassi pygmæa 11, 70
hernandezi 11, 66
maccalli 11, 65
modestum 11, 64
platyrhinum 11, 65
regale 11, 66
Phyllodactylus tuberculosus 11, 189
xanti 12, 73, 189
Pityophis elegans 16, 108
melanoleucus 16, 105
sayi bellona 16, 106, 107
sayi sayi 16, 105
vertebralis 16, 107, 191
Plethodon cinereus cinereus 21, 153
cinereus dorsalis 21, 154, 192
cinereus erythronotus 21, 154
croceater 21, 192
flavipunctatus 21, 192
glutinosus 21, 155
intermedius 21, 154, 192
oregonensis 21, 155, 192
Pseudemys concinna 6, 32
elegans 6, 33
hieroglyphica 6, 187
mobilensis 6, 32, 187
ornata 6, 33, 187
rugosa 6, 32
scabra 6, 32
troosti 6, 32, 187
Pseudobranchus striatus 20, 144

R.

Rana areolata areolata 25, 178
areolata capito 25, 178
catesbiana 25, 184
clamitans 25, 183
halecina berlandieri 25, 180, 181
halecina halecina 25, 179, 180
montezumæ 25, 178
palustris 25, 182
pretiosa 25, 186
septentrionalis 25, 182

Page.
Rana temporaria aurora.....25, 185
temporaria cantabrigensis...25, 186
temporaria silvatica.....25, 185
Rhineüra floridana..... 7, 39
Rhinochilus leconteii..... 14, 88

S.

Sauromalus ater..... 9, 51
Scaphiopus couchi.....25, 177
holbrooki.....25, 178
varius rectifrenis.....25, 193
varius varius.....25, 177
Sceloporus biseriatus 10, 59, 189
clarki clarki..... 11, 63
clarki zosteromus...11, 64, 189
consobrinus..... 10, 61
consobrinus gratiosus..
10, 62, 189
couchi.....10, 58, 189
floridanus 10, 62, 189
jarrovi 10, 57
marmoratus 10, 58, 189
ornatus 10, 57, 189
poinsetti 10, 58
rufidorsum 11, 64
scalaris 10, 62, 189
smaragdinus 10, 62
spinosus..... 10, 63
torquatus 10, 58
tristichus.....10, 62, 189
undulatus occidentalis. 10, 61
undulatus thayeri..... 10, 60
undulatus undulatus.10, 59, 60
utiformis. 10, 62, 189
Sibon annulatum septentrionale... 15, 98
Siren lacertina 20, 143
Smilisca baudini.....24, 176, 193
Sonora semiannulata.....14, 87, 190
Spea bombifrons.....24, 177
hammondi.....24, 177, 193
multiplicata.....24, 177, 193
stagnalis 25, 177
Spelerpes bilineatus 22, 156
guttolineatus.....22, 157
longicaudus.....22, 156
multiplicatus.....22, 156, 193
ruber montanus.....22, 158
ruber ruber.....22, 157
ruber stieticeps.....22, 158, 193
Sphærodactylus notatus 11, 72, 189
Spilotes couperi 16, 104
erebennus.....16, 104
Stenostoma dulce..... 20
humile 20
Stereochilus marginatum.....22, 192
Storeria dekayi 18, 130
occipitomaculata.....18, 129
Syrrhopus marnocki 24, 193

T.

Tantilla coronata..... 13, 85
gracilis 13, 84
hallowelli 13, 84, 190
nigriceps 13, 85
planiceps 13, 190
Thalassochelys 26
caretta..... 5, 28
kempi..... 5, 187
Trimorphodon lyrophanes..... 15, 98
Tropidoclonium kirtlandi 18, 131
lineatum 18, 131
storerioïdes.....18, 191
Tropidonotus clarki 18, 131
compressicaudus.19, 133, 191
compsolæmus 19, 191
cyclopium. 19, 137
fasciatus..... 19, 133, 134
grahami.....18, 131
leberis 18, 132
rigidus.....18, 132
rhombifer 19, 137
sipedon couchi.....19, 135
sipedon erythrogaster19, 136
sipedon sipedon..19, 134, 135
sipedon woodhouseii.19, 135
taxispilotus 19, 136
ustus.....19, 133, 191
validus celæno 18, 133
validus tephropleura
18, 133, 191
validus validus.....18, 132

U.

Uma notata.....9, 51, 189
Uta elegans 10, 55
graciosa..... 9, 54
nigricauda 10, 55
ornata 10, 56
schotti..... 10, 55
stansburiana 10, 56, 57
thalassina.....9, 54, 189

V.

Verticaria hyperythra..... 8, 45
Virginia elegans..... 13, 84
valeriæ..... 13, 83

X.

Xantusia vigilis 8, 42, 188
Xerobates agassizi..... 7, 38
berlandieri..... 7, 38
polyphemus..... 7, 38

INDEX TO COMMON NAMES OF REPTILIA AND BATRACHIA.

Page.

A.

Agassiz's Gopher 7
Soft-shelled Turtle 5
Alderman Lizard 9
Allen's Snake 19
Alligator 5
Lizard 10
Snapping Turtle 5
American Crocodile 5
Toad 23
Anderson's Hyla 24
Anthracite Skink 7
Arizona Coach-whip Snake 16
Diamond Rattlesnake 12
King Snake 14
Skink 7
Arkansas King Snake 14
Arny's Ring-necked Snake 15
Ashy Lizard 21
Atlantic Green Turtle 5
Hawk's-bill Turtle 5
Axolotl 20

B.

Bailey's Salamander 21
Baird's Coluber 16
Lizard 9
Toad 23
Triton 22
Banded Hyla 24
Miter Snake 14
Rattlesnake 12
Water Snake 18
Bastard Loggerhead 5
Beesley's Point Salamander 20
Bell's Turtle 6
Belding's Toad 23
Berlandier's Frog 25
Bermuda Skink 8
Black-bellied Lizard 21
Black-breasted Lizard 8

Page.

Black Chaser 16
Black Garter Snake 18
Black-headed Tantilla 13
Black Hog-nose Snake 19
Black Rattlesnake 12
Black Snake 16
Black-spotted Tree Frog 23
Black-tailed Rattlesnake 12
Black-tailed Uta 10
Black Tree Frog 23
Black Triton 22
Black Viper 19
Blainville's Horned Lizard 11
King Snake 15
Blanding's Terrapin 7
Blotched King Snake 15
Blowing Viper 19
"Bloody Nouns" 25
Blue-tailed Skink 8
Blue Worm Snake 7
Blunt-tail Skink 7
Boll's Spotted Lizard 9
Boyd's Garter Snake 17
Box Tortoise 7
Botta's Worm Snake 19
Brown-back Ground Lizard 7
Brown Queen Snake 18
Brown Salamander 21
Brown Snake 13
Brown Triton 22
Brown Water Snake 19
Bull Frog 25
Bull Snake 16

C.

Cadaverous Hyla 24
California Axolotl 20
Dragon 9
Garter Snake 18
King Snake 14

Page.
California Mud Turtle 6
Rattlesnake 12
Rena 20
Red-backed Alligator Lizard 11
Ring-necked Snake 15
Terrapin 7
Cambridge Frog 25
"Caonne" 5
Cape St. Lucas Hyla 24
Spade Foot 25
Striped Lizard 8
Triton 21
Carolina Hyla 24
Tree Frog 23
Chain Snake 14
Chameleon 11
Hyla 24
Chestnut-backed Lizard 21
Chicken Snake 14, 16
Turtle 6
Chirotes 7
Churchill's Garter Snake 18
Clark's Alligator Lizard 11
Snake 18
Tree Frog 23
Coach-whip Snake 16
Colorado Desert Lizard 9
Collared Lizard 9, 10
Miter Snake 14
Columbia Toad 23
Confluent Rattlesnake 12
Congo Snake 20
Cooper's Garter Snake 18
Green Lizard 11
"Cooter" 5
Cope's Hyla 24
Lizard 9
Skink 7
Spea 24
Toad 23
Tree Frog 23
Copperhead 12
Cotton-mouth 12
Couch's Garter Snake 17
Queen Snake 18
Spade Foot 25
Water Snake 19
Couper's Snake 16
Crested-back Cyclura 11
Crowned Horned Lizard 11
Tantilla 13
Cumberland Terrapin 6

Page.
D.
Decorated Lizard 10
De Kay's Snake 18
Diamond-backed Terrapin 6
Diamond Rattlesnake 12
Dog-nose Snake 14
Douglass's Horned Lizard 11
Dusky Garter Snake 18
Salamander 20

E.
Eared Triton 22
Eastern Mud Turtle 6
Water Lizard 22
Eight-lined Lizard 8
Eisen's King Snake 15
Elegant Bull Snake 16
Uta 10
Emory's Garter Snake 17
Snake 16
Soft-shelled Turtle 5
Eschscholz's Lizard 21
Evan's King Snake 15

F.
Fairie's Garter Snake 17
Femoral Hyla 24
Flat-footed Salamander 21
Flat-headed Tantilla 13
Flat-tailed Water Snake 19
Florida Alligator Lizard 10
Cooter 6
Frog 25
Gecko 11
Harlequin Snake 13
Hyla 24
Manculus 22
Miter Snake 14
Skink 7
Water Snake 18
Four-fingered Manculus 22
Four-lined Snake 16
Fowler's Toad 23
Fox Snake 16
Fresno King Snake 15

G.
Gabb's Dragon 9
Garter Snake 17
Geographical Terrapin 6
Georgia Snake 16
Gibbes's Proteus 20
Gila Monster 9
River Lizard 8

Page.
Girard's Toad 23
Glass Snake 8
Gopher 7
Graceful Tantilla 13
Uta 9
Graham's Arizona Snake 15
Queen Snake 18
Snake 15
Striped Lizard 8
Grass Snake 18
Great Striped Lizard 8
Green Lizard 11
Green-brown Lizard 9
Green Snake 16
Green Queen Snake 18
Green Triton 22
Green's Triton 22
Ground Snake 13
Worm 7

H.

Hallowell's Coach-whip Snake 17
Skink 8
Tantilla 13
Hammond's Garter Snake 17
Spea 24
Harlequin Snake 13
Hayden's Skink 8
Hellbender 20
Helen's Snake 13
Henry's Mud Turtle 6
Hernandez's Horned Lizard 11
Hog-nose Snake 19
Holbrook's Lizard 9
Spade Foot 25
Terrapin 6
Triton 22
Water Snake 19
Hoop Snake 13
Horn Snake 13
Horned Lizard 11
Rattlesnake 12
Horse Snake 13
House Snake 14

I.

Imperial Snake 15
Irwin's Snake 15

J.

Jefferson's Salamander 20
Jew's-harp Snake 15

K.

Keeled Green Snake 16
Kennerly's Hog-nose Snake 19

Page.
Kennicott's King Snake 14
Rattlesnake 12
King Snake 14
Kirtland's Snake 18

L.

Lake Siren 20
Land Turtle 7
Lateral Salamander 21
Latreille's Toad 23
Lead-colored Worm Snake 19
Leather-back Turtle 5
Le Conte's Mud Turtle 6
Snake 14
Le Sueur's Terrapin 6
Lindheimer's Snake 16
Lined Snake 18
Little Horned Lizard 11
Loggerhead 5
Long-footed Frog 24
Long-nosed Garter Snake 17
Long-tailed Triton 22
Long's Garter Snake 17
Louisiana Black Snake 16

M.

Malachite Alligator Lizard 10
Many-keeled Lizard 9
Many-ribbed Spea 24
Triton 22
Many-scaled Boa 19
Marbled Lizard 10
Salamander 20
Marcy's Alligator Lizard 10
Garter Snake 17
Margined Painted Turtle 6
Triton 22
Marnock's Frog 24
Massasauga 12
McCall's Horned Lizard 11
Mexican Ground Rattlesnake 12
Horned Lizard 11
King Snake 14
Lizard 9
Spotted Lizard 9
Striped Lizard 8
Milk Snake 14
Mitchell's Rattlesnake 12
Miter Snake 14
"Mobilianer" 6
Mobile Terrapin 6
Moccasin 12
Mohave Snake 13
Ringed Snake 14
Montezuma's Frog 25

Page.
Mountain Black Snake 16
Triton 22
Mud Eel 20
Turtle 6
Muhlenberg's Turtle 7
Musk Turtle 5, 6

N.

Nebulous Toad 23
New Mexican Alligator Lizard 10
Salamander 20
Spea 25

O.

Oak Frog 23
Ocellated Garter Snake 17
Oregon Lizard 9
Salamander 21
Triton 21
Worm Snake 14
Ornate Garter Snake 17
Horned Lizard 11
Terrapin 6
Uta 10
Orizaba Garter Snake 18
Ornate Tree Frog 24
Osceola's Snake 14
Osten-Sacken's Garter Snake 17

P.

Pacific Coach-whip Snake 17
Frog 25
Green Turtle 5
Hawk's-bill Turtle 5
Hyla 24
Lizard 21
Water Lizard 22
Painted Box Tortoise 7
Toad 23
Turtle 6
Pond Turtle 6
Pickering's Garter Snake 18
Hyla 24
Pigmy Horned Lizard 11
Pine Snake 16
Pluvial Skink 7
Poinsett's Lizard 10
Porphyry Salamander 21
"Potter" 6
Prairie Rattlesnake 12
Proteus 20
Purple-tailed Snake 14

Page.

R.

Racine Garter Snake 17
Red-bellied Snake 13
Terrapin 6
Water Snake 19
"Red-eye" 12
Red-headed Coluber 16
Red King Snake 14
Red Rattlesnake 12
Red-spotted Chilopoma 17
Red Triton 22
Regal Horned Lizard 11
Ring-necked Snake 15
Reticulated Lizard 9
Ribbon Snake 17
Ricord's Frog 24
Ridgway's King Snake 15
Ringed Snake 15
King Snake 14
Ring-necked Snake 15
Robber Frog 24
Rocky Mountain Frog 25
Garter Snake 18
Salamander 21
Rosy Boa 19
Rough Soft-shelled Turtle 5
Rusty Anaides 22

S.

Sad-colored Anaides 22
Salmon Triton 22
Salt-water Terrapin 6
Sand Viper 19
Savannah Cricket 23
Say's King Snake 15
Pine Snake 16
Tessellated Lizard 8
Scaly Alligator Lizard 10
Garter Snake 18
Lizard 21
Scarlet King Snake 14
Scarlet Snake 14
Schott's Lizard 8
Uta 10
"Scorpion" 8, 11
Scutulated Rattlesnake 12
Seven-lined Lizard 8
Shad Frog 25
Shielded Uta 9
Short-lined Skink 7
"Side-winder" 12
Siren 20
Six-lined Lizard 8
"Skilpot" 6

Page.
Skilton's Skink 8
Skink-tailed Lizard 9
Slender Lizard 21
Salamander 21
"Slider" 6
Slimy Lizard 21
Small Spadd Toad 23
Smooth-back Cyclura 11
Snapping Turtle 5
Soft-shelled Turtle 5
Sombre Alligator Lizard 10
Sonora Ground Rattlesnake 12
Harlequin Snake 13
Hyla 24
King Snake 14
Ring Snake 13, 14
Sonoran Skink 8
Sonora Spade Foot 25
Toad 22
Southern Ground Rattlesnake 12
Mud Turtle 6
Spiny Alligator Lizard 10
Spiny-back Cyclura 11
Spiny-breasted Horned Lizard 11
Spiny Soft-shelled Turtle 5
Spotted Coluber 16
Rattlesnake 12
Salamander 20
-tail Dragon 9
Toad 22
Turtle 7
Spreading Adder 19
Sprinkled Salamander 20
Spring Frog 25
Squirrel Hyla 24
Stansbury's Uta 10
St. Lucas Alligator Lizard 11
Bull Snake 16
Coach-whip Snake 17
Gecko 12
Phimothyra 15
Queen Snake 18
Rattlesnake 12
Water Snake 18
Stink-pot 5
Storer's Snake 18
Straw Snake 13
Striated Siren 20
Turtle 7
Striped Snake 17
Sumichrast's Garter Snake 18
Swamp Frog 25
Swift Garter Snake 17

Page.
T.
Tadpole Salamander 20
Tawny Harlequin Snake 13
Tennessee Hellbender 20
Tessellated Lizard 8
Tiger Lizard 8
Texas Coach-whip Snake 17
Frog 25
Harlequin Snake 13
Moccasin 12
Rena 20
Ring-necked Snake 15
Salamander 21
Spotted Lizard 9
Toad 23
Triton 22
Thayer's Alligator Lizard 10
Three-toed Box Tortoise 7
Thunder and Lightning Snake 14
Snake 14
Worm 7
Three-fingered Siren 20
Three-lined Boa 19
Tiger Rattlesnake 12
Salamander 20
Toad 23
Tree Frog 23, 24
Triton 22
Troost's Moccasin 13
Terrapin 6
Twining's Garter Snake 17
Two-handed Ground Snake 7
Two-lined Lizard 10

U.
Unarmed Trionyx 5
Uta Alligator Lizard 10

V.
Valeria's Snake 13
Vancouver Island Lizard 21
Vancouver's Salamander 21
Van Vliet's Frog 24
Variegated Gecko 11
Virginia's Snake 13
Viper 13

W.
Wandering Garter Snake 17
Water Moccasin 12, 19
Snake 19
Warren's Skink 8
Warty Gecko 11
Western Alligator Lizard 10

INDEX TO LOCALITIES FROM WHICH REPTILES HAVE BEEN OBTAINED.

A. Page.

Agriculture, Department of..... 91
Alabama 71, 125, 164, 175
Athens 88
Dayton..... 155
Eutaw ...41, 43, 59, 71, 81, 122, 124, 125, 138, 140, 157, 159, 166, 174, 182, 183
Fort Morgan..... 103
Mobile 59, 169, 184
Montgomery.....33, 42, 43, 59, 79, 134
Moulton.....95, 147, 155, 161
Northern 41, 59, 134
Round Lake..... 71
Sprout River..... 102
Tuscumbia. 93, 144
Alaska, Puget Sound..... 171
Antelope Creek 135, 167
Arispe..... 119
Arizona .31, 41, 43, 48, 49, 51, 52, 53, 56, 57, 58, 65, 66, 68, 70, 77, 78, 82, 88, 91, 106, 110, 112, 119, 149, 162
Ash Creek 31
Bonito Cañon.....52, 149
Camp Apache.....49, 51, 52, 57, 58, 61, 64, 68, 77, 96, 112, 122, 165
Camp Bowie..... 66
Camp Brent 97
Camp Crittenden ...49, 56, 63, 162, 179
Camp Grant 43, 77, 88, 96, 108, 111, 113, 117
Camp J. A. Rucker..... 48, 57
Camp Lowell.....43, 66, 68
Camp Mohave 38, 52, 53, 65, 86, 92, 96, 112, 167
Camp Warren 69
Cave Spring..... 49, 56
Cienegia..... 49
Fort Buchanan 43, 49, 51, 65, 69, 74, 75, 76, 88, 97 98, 113, 180
Fort Whipple 52, 53, 65, 68, 69, 73, 82, 87, 88, 91, 92, 97, 98, 106, 112, 113, 119, 120, 140
Gila River.....42, 56, 106
Gila River Bottom 76
Guadalupe Cañon..... 31

Page.

Arizona—Continued.
Mineral Spring 119
Mohave Desert.....51, 56, 57, 63, 65, 73, 76, 117
Mohave Village..... 98
Mount Trumbull..... 48
Oak Orchard 106
Ralston 47, 56, 57, 165
Rio Miembres..... 122
Rock Cañon 63, 69
Rock Mary 66, 169
Rush Lake 77
Saint Thomas..... 69
San Carlos..... 56
San Mateo..... 77
San Pedro River 48
Santa Rita Mountains..... 63
Southern 56, 61, 78, 92, 108, 113, 141
Southeastern 63, 66, 98, 108
Tucson 31, 117
Virgen River 56
White Mountains 68, 76
White River Cañon.....57, 68, 69, 91, 96, 98, 107, 121, 141
Wilton Springs. 106
Arkansas 46, 74, 75, 78, 80, 81, 89, 93, 103
Arkansas River. 93, 137, 144
Arkansas River, North Fork... 108
Canadian River..... 94
Fort Dawson 147
Fort George 88
Fort Jessup.....59, 108, 145
Fort Mason..... 66
Fort Smith 28, 42, 43, 46, 52, 63, 79, 100, 101, 108, 134, 135, 166, 169, 179, 184
Fort Towson 59, 67, 84, 89, 93, 110
Pole Creek 165
Red River 52, 77, 80, 90, 93, 106, 111, 115, 117, 140, 156, 165, 184
Verdigris River.....52, 169

B.

Barbadoes 81
Bermuda 42, 156
Bitterwood Valley 125

Page.
British America 185
Athabasca River 179, 185
Fort Resolution 170, 186
Hudson's Bay Territory 153
Hudson's Bay, near Lake Abitil. 150
James Bay 163, 179, 185, 186
James River, Upper 158
Lucknow 150
Manitoba 144
Moose Island 186
Moose River 151, 182, 185, 186
Halifax 125, 147
Pembina 116
Red River of the North ... 35, 149, 170, 175, 179, 181, 182, 185, 186
Saint Catherine's 95, 130, 150, 151, 153, 154, 161, 186
Saint Joseph's Island 81
Savina 130
Selkirk Settlement 122, 163, 170, 174, 185
Quebec 179, 183, 185
Bryan's Fork 126

C.

California 41, 47, 48, 50, 52, 53, 54, 59, 60, 61, 63, 66, 70, 76, 107, 112, 119, 122, 125, 126, 141, 152, 153, 158, 160, 171, 172, 176, 177
Angel Island 51
Arizona Valley 86
Benicia 162
Bodega 70
Cache Creek 96
Camp Bidwell 121, 125
Canoe Creek Valley 125
Cape Saint Lucas . 28, 41, 42, 45, 54, 55, 57, 64, 66, 67, 70, 71, 73, 74, 75, 86, 92, 97, 98, 107, 113, 121, 132, 133, 142, 177
Cerros Island 57, 171
Crescent City 128
Eagle Lake 117, 142
El Dorado County 41, 45, 60, 70, 92, 121, 160
Farallone Islands 158
Fort Crook 106, 107, 126, 172
Fort Reading 48, 92, 121, 127
Fort Stockton 95
Fort Tejon 36, 42, 45, 47, 49, 53, 56, 60, 70, 73, 76, 88, 92, 105, 109, 110, 113, 117, 149, 154, 162, 172, 185
Fort Yuma 31, 38, 51, 54, 56, 71, 72, 75, 92, 112, 118
Fresno 53, 85, 87, 88, 92, 94, 96, 107, 112, 113, 142, 152, 160

Page.
California—Continued.
Honey Lake 106, 107, 109
Humboldt Bay 119, 122
Kern County 39
Kern River 77
Kernville 106, 110
Lake Tahoe 162, 163
La Paz 33, 38, 42, 45, 47, 50, 51, 53, 54, 55, 56, 57, 61, 63, 64, 66, 67, 68, 71, 73, 74, 75, 86, 92, 97, 98, 99, 107, 112, 133, 142, 162, 163, 171, 172, 177
Los Angeles 43, 44, 60, 64, 118, 171
Los Carnados 75
Lower 57
Mohave Desert 51, 52, 60, 61, 70, 106, 111, 118
Monterey 36, 47, 70, 106, 107, 121, 153, 155, 158, 162, 172
Mountains near Fort Tejon 171
Mount Whitney 60, 171
Nicasio 36
Oakland 41, 142
Olamchu Peak 56, 61
Petaluma 47, 60, 87, 95, 107, 112, 150, 153, 158, 182
Pitt River Cañon 119
Pitt River 128
Pitt River Valley 109
Presidio 47, 60, 109, 142, 162, 185
Region, Upper 162, 166
Saint Martin's Island 106
Salado River 180
Salado Valley 38
San Bernardino 105
San Diego 36, 39, 46, 47, 58, 60, 63, 70, 117, 162, 172, 184
San Francisco 36, 39, 47, 48, 59, 70, 75, 76, 77, 92, 107, 109, 112, 122, 124, 128, 153, 158, 160
San José 87, 95
San Pedro 56, 58, 70, 76
San Quentin 160
Santa Barbara 48, 56, 60, 61, 70, 76, 92, 106, 107, 113, 153, 162, 171
Santa Catalina Island 76
Santa Cruz 75, 172
Santa Cruz Island 48, 56, 171
Sonoma County 171
Southern 44, 53, 56, 60, 63, 106, 117, 121, 171, 175, 186
Tahoe Plain 47
Tiburon Island 82
Tomales Bay 125
Triunfo 73
Vallicita 142

Page.

California—Continued.
Walker's Basin 112
Yampai Valley 51
Yuba..... 171
Camp Packer..... 107
Colorado 53, 54, 68, 69
Cache la poudre River 77, 119
Cañon Creek 112
Colorado River 45, 56, 57, 78, 115
Colorado Springs 49, 68, 69, 165
Colorado Desert 45, 86, 92
Colorado and Zuñi Survey..54, 63, 65, 66, 69, 136
Conejos 119
Fairplay 170
Fort Garland 164, 165, 170, 181
Fort Lyon..... 141
French Creek..... 120
Pagosa.... 68, 105, 106, 107, 119, 170
Pueblo 108, 112, 118
Rio Grande..... 117
San Luis Valley 119
South Park.....150, 163
Twin Lakes 119
Connecticut 114
Cobalt 109
Middletown 44, 95, 114, 123
Norfolk 154, 161, 167
Weathersfield 83, 174, 183
Westfield Falls 136
Cuba..... 28, 72

D.

Dakota..... 149
Missouri River..... 126
Rio Blanco 31
Yellowstone River ..33, 35, 68, 77, 106, 123, 127, 139, 141, 165, 166, 181, 184
Yellowstone River, mouth of .. 179
Yellowstone and Missouri Rivers 106, 122, 128
Delaware Creek 162
District of Columbia..30, 36, 37, 60, 89, 135
Georgetown 110, 124, 134, 136, 164
Potomac River.....153, 154, 175
Rock Creek.....59, 149, 154
Washington 32, 34, 36, 41, 59, 67, 80, 83, 89, 90, 91, 95, 109, 122, 124, 126, 130, 132, 134, 135, 138, 154, 157, 161, 166, 169, 174, 175, 179, 183, 185

E.

Ells Sutton Beach 136

F.

Florida 27, 35, 37, 38, 39, 46, 72, 75, 80, 103, 104, 111, 123, 147, 168

Page.

Florida—Continued.
Apalachicola 90
Arlington.....42, 44, 46, 78, 85, 88, 89, 100, 102, 103, 109, 110, 111, 123, 134, 138, 139, 145, 164, 169, 170
Biscayne Bay..... 27
Cape Punta..... 72
Cedar Keys..... 91
Charlotte Harbor.....91, 133
Clearwater..27 30, 35, 38, 39, 44, 46, 60, 72, 78, 79, 84, 90, 95, 100, 103, 104, 109, 111, 114, 115, 123, 133, 136, 138, 139
East 31
Enterprise 89, 90
Gainesville 27, 28, 75, 79, 81, 85, 89, 92, 100, 102, 104, 105, 109, 110, 111, 114, 115, 123, 124, 133, 134, 135, 136, 137, 138
Garden Key 28
Georgiana 30, 44, 46, 60, 72, 81, 90, 95, 100, 102, 103, 109, 134, 136, 173
Gulf Hammock..... 75
Homosassa 38, 92
Indian River 34, 41, 43, 91, 103, 123, 164, 178
Jacksonville..... 27
Lake Monroe 71, 164
Little Sarasota Bay 42, 44, 71, 103, 114, 164, 168, 173
Manatee..... 39
Micanopy.....38, 39, 43, 46, 59, 71, 81, 102, 103, 109, 134, 137, 138, 156, 165, 174, 176, 178, 184
Milton 60, 72, 90, 104
Palatka 29, 30, 31, 32, 102, 103, 109, 114, 133
Pensacola.....27, 32, 35, 43, 46, 62, 71, 72, 78, 81, 85, 89, 100, 103, 109, 111, 114, 130, 140, 164, 167, 169, 173, 179, 183, 184
Saint Augustine 75, 176, 179
Saint John's River 27, 32, 39, 46, 81, 105, 139, 184
Sanford 27, 75
Southern 41
Tallahassee.....59, 103
Tampa Bay..... 133
Tocoi 71
Volusia 82

G.

Garrison Creek 182
Georgia 46, 83, 85, 94, 129, 132, 143, 144, 146, 155, 160, 161, 162, 168, 169, 171, 173, 183

[illegible]

Fairfield [illegible]
Fox River [illegible]
Grand [illegible] 100, [illegible]
Ma[illegible] 100
M[illegible] [illegible]

[illegible]

Kansas [illegible] 37, 37, 46, 47, 48, 49, 74, 101, 18, [illegible] 121, 127, 129, 130, 140, 165, 19
[illegible] River [illegible] 4
[illegible] River [illegible] 170
Fort Riley [illegible] 41, 42, 52, 59, 66, 67, 68, 70, [illegible] 93, 101, 102, 106, 107, 108, 116, 122, 134, 138, 141, 149, 165, 167, 169

Page.
ansas—Continued.
Fort Riley, 105 miles west of... 169
Fort Scott 39, 83
Hyette 96
Little Blue River 127, 165, 166
Natchez 93
Neosho Falls.....40, 94, 99, 100, 115, 122, 131, 134
Neosho Valley 33
Platte Valley 107
Republican River.....34, 35, 89
Salt Creek..... 180
Shawnee Mission 93, 184
Shawnee Village..... 184
entucky:
Knoxville 41
Louisville 154
Mammoth Cave, near 129
Russellville....39, 59, 148, 167, 169, 179

L.

ake Huron 136
ake Superior ...122, 123, 144, 154, 179, 185
Fort William 154
ake Winnipeg 115
akes, Great.....144, 146
atitude, near 32°.....43, 52, 53, 64, 77, 80, 101, 118
Near 38°.....41, 44, 52, 53, 61, 62, 65, 69, 105, 119, 120, 136
ouisiana 71, 72, 89, 173
Calcasieu..... 134
Calcasieu Pass.....39, 46, 90, 108, 115, 138, 168
Grand Couteau.....39, 42, 71, 78, 80, 84, 100, 103, 108, 110, 115, 130, 133, 137, 143, 147, 173, 175, 179
Mandeville 32, 83, 136, 152, 155, 156, 159
New Orleans.....39, 43, 72, 79, 81, 88, 89, 93, 108, 114, 126, 130, 131, 133, 134, 136, 166, 167, 175, 180, 184
New Orleans Academy 175
Prairie Mer Rouge.....29, 33, 35, 74, 79, 80, 83, 85, 88, 89, 108, 110, 115, 133, 136, 137, 143, 145, 146, 147, 152, 166, 169, 173, 174, 179, 182, 183, 184
Saint James Parish 115, 130
Tickfaw 169, 179
Tangipahoa River 59, 175

M.

lagdalena, Straits of 96
laine: Androscoggin..... 125
Brunswick 99
Eastport 130, 167

Page.
Maine—Continued.
Kennebago 183
Portland 99, 129
Scarborough..... 185
Subec Pond..... 179
Maryland 92, 166, 174
Baltimore 91, 132
Centerville 123, 129
Cheat River 102
Cumberland County 183
Havre de Grace..... 30, 91, 126, 167
Hyattsville 91
Kent County 83
Laurel 92, 138
Montgomery County 91
Piney Point 44
Port Tobacco 91
Prince George's County.....43, 59, 60, 100, 170, 174, 185
Saint Jerome Creek 147
Saint Mary's County 44
Sandy Springs..... 91, 92
Wheaton 135
Massachusetts: Boston..... 174
Brookhaven 124
Cambridge 99, 178
Danvers..... 167
Framingham.....34, 130, 134, 135, 166, 179, 182
Gloucester..... 123
Lancaster 114
Martha's Vineyard 125
Mount Auburn..... 130
Plymouth Rock 99
Warren 103
Wood's Holl.....91, 114, 125, 154, 167
Medicine Cow Creek..... 181
Mexican Boundary..... 40, 69
Mexico....46, 62, 77, 78, 90, 99, 106, 117, 119
Alamos de Parros.....50, 64, 66, 111
Alpine region of 128, 129
Between Laredo and Camargo. 168
Boundary Survey..... 47
Caderita 63
California Mountains..... 166
Castaneulas 50, 66, 106, 162
Charco Escondido 63, 118, 180
Chihuahua 52, 64, 82, 117, 148, 162, 181
City of 172
Coahuila 45, 63, 165
Cobre Mines..... 141
Colva Numes, Copper Mines... 112
Dona Ana 53
Durango 97, 121, 13

Page.
ontana 77, 119, 141
Big Windy River..... 141
Fire-Hole Basin, Upper..... 68
Fort Benton 119
Frenchman's River..... 117
Medicine River..... 126
Milk River ...77, 117, 125, 126, 127, 140
Mouse River.....116, 117, 129
Shoshone Lake 165
Turtle Mountain..... 117
Yellowstone 61, 77, 127, 167, 181
Yellowstone, Camp Thorne....77, 177
Yellowstone, Fort Lookout.... 77, 89
orocco..... 28

N.

ebraska 49, 61, 68, 69, 79, 105, 110, 116, 120, 122, 126, 127, 134, 139, 141, 149, 165, 167, 179, 181
Fort Kearney 37, 40, 49, 77, 106, 107, 108, 126, 127, 133, 165, 181
Fort Kearney, 240 miles from.. 181
Fort Laramie.....29, 166
Fort Pierre.....165, 170, 179, 181
Loup Fork..... 169
Lower Platte..... 149
North Platte.....119, 169
Platte River 40, 49, 110, 120, 126, 127, 141, 167, 180, 181
Platte River Sandhills..... 40
Platte Valley.....106, 167, 181
Pole Creek 69, 77
Sand Hills.....68, 99, 141, 165
Sidney 30, 69, 77, 149
South Fork.....169, 181
South Platte River ..126, 141, 166, 167
evada 56, 62, 63, 65, 186
Big Bend of Truckee.52, 53, 77, 125, 142
Camp 12.....53, 65, 77, 107, 120, 126
Carson 112, 126
Cottonwood Cañon..... 73
Dome Cañon.....49, 52, 53, 56
Fort Pierre 123
Humboldt River.....119, 142
Humboldt River, Southern Fork 105
Lake Tahoe .. 60, 121, 122, 125, 172, 186
Platte Valley 149
Pyramid Lake.....53, 65, 77
Pyrmont 106, 119
Sand Hills..... 181
Snake Valley.....77, 119
Virginia City.....57, 61, 65, 162
ew Jersey..... 100
Beesley's Point 32, 34, 83, 148
Jersey City..... 161

Page.
New Jersey—Continued.
Mount Holly 59, 105, 166, 174, 175, 183
Orange..... 159
Pointsville 60, 157
Trenton 36, 157
Vineland 138
New Mexico 43, 49, 64, 68, 106, 111, 118, 120, 122, 141, 149, 150, 162, 164, 165
Abiquiu 43, 49, 62, 68, 99, 119, 180
Albuquerque 56, 124, 180, 181
Alto dos Utas..... 177
Arkansas and Cimarron, between 108, 126
Caderita 90
Cantonment Burgwyn 120, 166
Cimarron..... 125
Cimarron River 46, 100
Colorado Chiquito.....49, 56, 106
Copper Mines 111
Fort Benton and Fort Union, between..... 181
Fort Bliss .66, 88, 100, 101, 149, 164, 181
Fort Buchanan..... 73
Fort Conrad.....105, 108
Fort Craig..... 63, 98
Fort Defiance 166
Fort Garland..... 118
Fort Union 31, 33, 52, 68, 77, 89, 116, 141, 149, 170, 180
Fort Wingate 61, 75, 77, 105
Gila and Colorado 75, 111
Gila River..... 85
Lajura 53, 112
Merino Valley 99
Nutrias 112, 149, 172
Ocate 126
Ocate River 127
Ojo Caliente..... 58
Pescao 61
Pesquiera Grande..... 64
Plaza del Alcalde.....43, 49, 166, 180
Pole Creek 123
Rio Colorado 68
Rio Grande..... 35
Rio San Pedro 162
San Francisco Mountains 119, 178
San Ildefonso 44, 49, 52, 56, 64, 68, 117, 119, 122, 141
San Juan River 61, 119, 180
San Luis 61
San Pedro, Gila River..... 180
Sans-bois Creek..... 78
Santa Fé 43, 49, 52, 53, 61, 68, 69, 140, 141, 150, 172, 175, 180
Santa Fé Creek..... 14

Page.

New Mexico—Continued.
Sierra Verde 74
Taos ...61, 62, 68, 118, 119, 179, 180, 181
Tierra Amarilla 56, 110
Wilton Springs 119
Zuñi 66
Zuñi River 69
New York 27, 28, 34, 90, 91, 95, 103, 130, 136, 147, 148, 150, 154, 155, 161
Adirondack Mountains 124, 125
Allegany County 146, 147, 154, 159
Central Park 167
Coxsackie 154
Elizabethtown 166, 174, 183, 184
Essex County 156, 166, 167
Grass River, Madrid 144
Katonah 74
Lebanon Springs 90, 99
Livingston County 132
Long Island, Bedford 90, 122
Madras 34
Madrid 129, 182
Ogdensburg 185
Oneida County 166
Schenectady 36
Seneca Lake 184
Tioga County 99, 108, 114, 125, 161
West Point 161
Westport 99, 126, 129, 134, 154, 156, 159, 161, 174, 182, 183, 184, 185
Nicaragua 59
Northwest Boundary Survey 47, 48, 67
North Carolina 41, 42, 71, 155
Anderson 129
Avoca 116, 123, 135, 136
Beaufort 28
Fort Macon 27, 44, 46, 100, 110, 140
Goldsboro' ..135, 138, 157, 167, 169, 175
Green Plains 174
Hillsboro' 146, 158
Jackson 75, 94, 122, 136
Jackson County 83, 166
Kinston 32, 39, 41, 43, 60, 72, 83, 85, 90, 91, 100, 102, 103, 123, 129, 130, 132, 134, 136, 139, 144, 147, 161, 166, 167, 168, 173, 182
Middle Sound 71
Morgantown 157
Neuse River 143
New Berne 41, 46, 79, 85, 91, 102, 133, 139
Northampton County 103
Salem 39, 60, 108, 124, 134, 158, 159, 166, 169, 175, 180, 183
Salem Creek 83

Page.

North Carolina—Continued.
Society Hill 139
Somerville 36, 72, 84, 91, 95, 103, 114, 122, 129, 139
Statesville 109, 130, 138, 140
Tarboro' 31, 32, 100, 139, 144, 145, 174, 179, 184
Wilmington .27, 32, 46, 59, 74, 78, 79, 80, 84, 85, 95, 100, 133, 134, 138, 140, 145

O.

Ohio 88, 150
Black River, Elyria 184
Cincinnati 155, 156, 157, 160, 161
Cleveland 96, 144, 147
Columbus 34, 79, 99, 122, 123, 124, 130, 134, 144, 148, 156, 158, 159, 166, 174, 179, 183, 184
Delaware County 108
Elyria 184
Hamilton County 157
Highland County 130, 132, 159, 166, 183
Hughes 89, 91, 95, 109, 129, 130, 131
Lancaster 147, 157
Madison 129, 130
Marietta ..33, 95, 110, 138, 166, 173, 184
Monroe 99, 123, 130
Morton 83
Poland 146
Poland County 35, 134
Portage County 183
Ripley 150
Sandusky 33
Toledo 114, 144, 182, 185
Trumbull County 79
Warren 83
Yellow Creek 129, 185
Oregon 47, 48, 61, 62, 70, 76, 77, 87, 113, 121, 125, 152
Astoria 151, 152, 160, 185
Blue Mountains 76
Camp Harney 76
Camp Warner 121
Chilowyuck 151, 163
Chilowyuck Lake 151, 152, 171
Columbia River 76, 106, 163, 185
Dallas 119
Des Chutes River 70, 125
Eugene City 160
Feather River 47
Fort Dallas 61, 96, 106, 109, 125, 171, 172
Fort Klamath 121, 151
Fort Townsend 59

Page.

Oregon—Continued.
Fort Umpqua. ...60, 76, 122, 163, 171
Karawapin Valley 121
Klamath Lake 109, 110, 182
Neah Bay 151
Pitt River 107
Powder River, above..... 109
Puget Sound..36, 47, 105, 110, 125, 127, 128, 142, 151, 159, 160, 182, 185, 186
Shoalwater Bay ...122, 125, 163
Southern 126
Tahat Plains 126
Wemas River..... 107
Western 127, 128
Whewakan Valley..... 64
Willamette Valley.....60, 142

P.

Pacific R. R. Survey 33, 47, 54, 63, 76, 110, 120, 128, 181
Pacific R. R. Surv., South..... 67
Pass Creek 181
Pennsylvania 37, 146
Baiubridge 36, 182
Berks County..... 30
Bradford County 36, 159, 166
Brookville. 179, 184
Canonsburg 158
Carlisle.....30, 42, 74, 80, 95, 99, 102, 110, 114, 132, 134, 138, 140, 147, 148, 153, 155, 157, 158, 159, 161, 166, 169, 173, 179, 182, 183, 184, 185
Centre County 167
Columbia County..... 161
Columbus..... 156
Delaware County.....59, 155, 157
Foxburg.....83, 122, 123, 124, 132, 157, 158, 166, 184
Indiana County..... 114
Lancaster County..... 184
Meadville 124, 144, 146, 155, 156, 157, 158, 161, 166, 174, 182, 183, 184
Mount Joy.....90, 150, 153
Pittsburg 95, 129, 130, 159
Philadelphia 36, 166, 182
Upper Darby 30, 36
Western 150, 156
West Philadelphia.....175, 182
Placnis 64
Poplar River..... 106

R.

Redmond's Pass..... 57
Redmond's Ranch..... 58
Red River Expedition..... 49
Rhode Island, Newport..... 95

Page.

Rocky Dell Creek..... 75
Rocky Mountains.....120, 128
Rocky Mountains, North..... 152

S.

Salt Plains..... 165
South Carolina.....60, 81, 88, 155, 174
Abbeville... 29, 41, 140, 146, 147 155, 157 159, 160, 161, 166, 174
Anderson.....39, 41, 72, 83, 85, 88, 91, 94, 95, 100, 103, 129, 132, 139, 140, 157 164, 166, 172, 174, 175, 183, 185
Anderson County..... 110
Beaufort.....164, 173
Charleston 29, 30, 31, 32, 39, 41, 46, 59, 71, 75, 79, 80, 81, 84, 90, 91, 108, 123, 125, 133, 136, 138, 139, 143, 145, 155, 164, 165, 166, 168, 169, 170, 179, 184
Columbia.....42, 143, 157
Edgefield..... 148
Georgetown ..85, 97, 102, 111, 132, 143
Grahamville 155, 173
Morgan..... 110
Oakley.....30, 33, 72, 91, 143, 145, 160, 180, 184
S. Santee River..... 145
Society Hill.....43, 102
Summerville.....81, 175
Southern States.....60, 100, 115, 130, 131, 132, 175

T.

Tennessee.....114, 159, 180
Claiborne County..... 175
Clearbon..... 159
Franklin County.....41, 135, 157
Knoxville.....60, 132
Memphis.....59, 175
Nashville..... 138
Nolichucky River..... 146
Roan County.....41, 175
Rome County..... 43
Rutherford County 33, 134
Tyree Springs.....60, 83, 93, 95, 108, 110, 123, 130, 134, 138, 144, 146, 155, 158, 166, 182, 184
Union County..59, 60, 83, 123, 157, 158
Texas..... 40, 44, 63, 66, 67, 76, 81, 115, 138, 142, 147, 168
Northern.....59, 177
Northern Boundary..... 40, 67
Western.....50, 52, 67
Anton Chico 105
Austin 69
Beaver County 176
Blount County 124

Page.

Texas—Continued.

Brazos River. 42, 63, 66, 74, 76, 89, 101, 102, 108, 130, 161, 162
Brownsville 27, 29, 32, 33, 63, 78, 90, 98, 104, 110, 115, 118, 164, 168, 176, 180
Colorado Desert 54
Colorado River.....51, 52, 54, 63, 64, 73, 112, 181
Colorado River Basin 63
Colorado River Bottom..... 105
Colorado River, Near 165
Colorado River, North of..... 94
Corpus Christi 109
Dallas 110
Devil's River 48
Eagle Pass 75, 80, 84, 87, 100, 104, 113, 118, 140
Eagle Spring 97
El Paso 40, 50, 63, 125
Fort Bliss 52
Fort Chadbourne.....67, 87, 131
Fort Cobb.....93, 114
Fort Cobb, Old ...29, 32, 46, 53, 65, 149
Fort Dallas.....180, 181
Fort Davis 88, 97, 104, 123
Fort Inge 168, 169, 180
Fort McDowell 48
Fort McKavit 52, 101, 114
Fort Reynolds.....40, 149
Fort Stockton 50, 52, 64, 66, 76, 78, 115, 141
Galveston 71, 89, 90, 95, 100, 170
Gilmer 43, 84
Helotes 121
Hemstead 82
Howard Springs 113
Indianola.....70, 60, 63, 67, 75, 80, 81, 84, 87, 93, 98, 100, 111, 118, 131, 135, 164, 169, 178
Indianola and El Paso, Between 147
Indianola and San Antonio, Between 111
Laredo.....43, 45, 50, 54, 58, 63, 67
La Mesila 66
Leon River..... 180
Llano Estacado.....64, 87, 88, 106
Limpia Mountains 58
Live Oaks..... 181
Live Oak Creek 72
Los Nogales 52, 55, 58, 66
Medina 115
Medina River 30
Neuwied 50

Page.

Texas—Continued.

New Braunfels.....29, 43, 67, 101, 110, 111, 135, 155, 169, 173, 174
New Caswell 100
Owassee.....99, 132
Pecos River. 40, 43, 45, 49, 50, 53, 56, 63, 64, 66, 68, 77, 78, 81, 88, 93, 95, 98, 101, 108, 115, 116, 135, 137, 140, 141
Point Isabella 118, 164
Presidio del Norte 98, 106
Red River..... 129
Reutersville 108, 110, 118
Ringgold Barracks 50, 54, 162, 164
Rio Bravo 29
Rio Grande.....29, 51, 82
Lower Rio Grande.38, 104, 106, 108, 141
Rio Grande, West of..... 112
Rio Salado 131
Rio San Pedro 77
Rio Seco 29
San Antonio..30, 37, 43, 44, 49, 50, 63, 64, 67, 75, 77, 100, 106, 113, 118, 173, 180
San Antonio, Near 118
Saint Joseph's Island 66
San Pedro 30, 40, 49, 50, 61, 124, 138, 162, 168
San Pedro and Comanche, Between..... 142
Senterfitt 93, 106
Sweetwater 120
Trinity River. Headwaters.61, 95, 181
Upson..... 143
Upshur County 84
Verdigris River..... 79
Victoria..... 71
Wheelock 39, 103, 111, 115, 140

U.

Utah 31, 40, 49, 56, 62, 65, 69, 77, 79, 87, 96, 102, 163, 164, 165, 167, 175, 177, 181, 182
Beaver.....59, 68, 120
Box Elder 68
Carson's Pass..... 52
Carson River 65
Colorado River Crossing 68
Colorado River, Little 66, 69, 112
Cottonwood Cañon 57, 98
Cove Creek..... 69
Deseret City..... 68
Dome Cañon..... 61
Fairfield 61, 65, 165
Fort Bridger 120, 181
Fort Fillmore.....57, 93, 106
Humboldt River..... 65

Page.

Utah—Continued.
Latitude 38°..... 125
Middle..... 112
North Creek..... 120
Northern..... 69
Ogden.....98, 109, 110
Peterson..... 149
Provo....77, 110, 112, 120, 163, 177, 179
Rabeh Valley..... 132
Rush Lake.....77, 120
Salt Lake.....56, 59, 60, 62, 105, 112, 119, 125
Salt Lake Valley.....65, 109, 110, 181
Southern.....52, 53, 56, 73
Saint George..... 65
Steptoe Valley..... 77
Utah Lake..... 149

V.

Vermont..... 109
Burlington.....144, 150
Virginia.....31, 74, 80, 110, 114, 134, 135, 138, 147, 148, 157, 161
Alexander County..... 36
Appomattox County..... 90
Arlington.....83, 100, 124, 132. 134
Ball's Cross Roads..... 89
Chula..... 85, 99
Clark County.....67, 83, 90, 123, 138, 139, 154, 155, 183, 185
Fairfax County..... 123
Ferry Landing.....32, 37, 80, 102, 130, 133, 135, 183
Four-mile Run..... 134
Gloucester.....41, 91, 124, 129, 147
Gloucester County..... 100
Hampshire County..... 110
Leesburg..... 80
Lexington..... 161
Madison.....80, 103, 124
Norfolk.....36, 41, 43, 59, 134, 147, 155
Preston County.....124, 179
Ralston..... 134
Rappahannock River..... 139
Richmond..... 84
Roanoke.....103, 135
Roanoke County..... 89
Smith County..... 161
Southampton County..... 60. 92
York River..... 34

W.

Washington Territory..... 37
Cape Flattery.....61, 163
Fort Steilacoom.....36, 61, 68, 105, 109, 119, 120, 128, 142, 160

Page.

Washington Territory—Continued.
Fort Vancouver.....127, 160, 171
Fort Walla Walla.....35, 65, 70, 76, 106, 107, 117, 119, 125, 126, 172
McCloud River..... 92
Puget Sound..... 87
Shoalwater Bay.....171, 178
Simahmoo Bay.....144, 163
Welthy River..... 185
West Fork New Creek..... 106
Wisconsin.....71, 123, 126, 180
Aux Plaines.....41, 99, 100, 123
Aztalan.....169, 183
Baraboo.....46, 129
Cat Island..... 71
Eastern..... 99
Fond du Lac..... 183
Fox River..... 115
Geneva Lake..... 144
Madison.....35, 183
Milwaukee..... 84
Northeast..... 134
Oconomowoc River..... 169
Racine.....35, 79, 90, 99, 101, 116, 123, 129, 130, 134, 135, 147, 148, 150, 154, 155, 166, 174, 179, 184, 185
Racine River..... 115
Rochester..... 183
Root River..124, 132, 161, 166, 179, 182
Root River, Racine.....144, 183
Union County..... 175
Upper..... 129
Waukesha..... 183
Willow Creek..... 183
River, Upper.....182, 185
Wyoming.....117, 119
Bridger's Pass.....41, 69, 77, 93, 99, 116, 120, 123, 127, 149
Carson's Pass..... 61
Carson Valley..... 120
Cheyenne Pass.....149, 181
Fort Bridger.....49, 69, 149, 180
Fort Laramie.....40, 68, 119, 125, 126, 127, 149, 166
Fort Laramie, 100 miles east of. 181
Fort Simpson..... 185
Laramie River..... 180
Medicine Bow..... 119
Medicine Bow Creek..... 163
Near Bridger's Pass..... 108
Pole Creek.....141, 181
Pole Creek Pass..... 108
Red Fork Pass..... 108
West of Bridger..... 120

INDEX TO NAMES OF CONTRIBUTORS.

A. Page.

Abbott, Dr. C. C 36, 157
Abbott, R. O 71, 75
Academy, Charleston 143
Acad. Nat. Sci., New Orleans....43, 79, 81, 89, 152, 155, 166, 184
Acad. Nat. Sci., Phila.....126, 151
Adams, Prof. C. B.....28, 41, 42, 71, 72, 94, 103, 145, 173, 174
Agassiz, Prof. L.....66, 102, 136, 173, 174, 178
Agricultural Dept 135, 146
Aiken, C. E 105, 107, 108, 119
Aldrich, Chas 29, 30, 34, 96, 99, 101, 148, 179
Allen, Prof. J. A.....77, 106, 109, 141
Anderson, Dr. H. J.....100, 101
Anderson, U. S. A., Capt. R..... 61, 69 120, 166, 174
Anderson, Dr. W. W..... 114
Andrews, Prof. E. B 33, 78, 89, 95, 110, 124, 134, 147, 166, 179, 184
Arny, S..... 96
Arny, Gen. W. F. M 52, 149

B.

Bailey, Prof 173
Baird, Prof. S. F.....30, 32, 34, 35, 36, 39, 42, 71, 80, 83, 90, 95, 99, 102, 110, 114, 115, 116, 122, 123, 124, 129, 130, 132, 134, 135, 138, 140, 144, 146, 147, 148, 153, 154, 156, 157, 158, 159, 161, 164, 166, 167, 168, 169, 174, 179, 182, 183, 184, 185
Baker, E. B..... 133
Banks, M..... 144
Barker, A. L..... 91
Barker, H. L..... 145
Barker, Dr. S. B.....59, 75, 84, 90, 91, 108, 133, 136, 139, 145, 168, 170
Barnabuls..... 185
Barnes, A 119
Barnes, W. H.....114, 123
Barratt, Dr. J. B.....39, 140, 146, 147, 157, 160, 161, 166, 174
Barringer, A. L...36, 84, 109, 130, 138, 140
Barny 60

Page.

Barry, Rev. A. C.....61, 99, 123, 126, 134, 144, 169, 180, 183
Beach, Miss A..... 69
Beadle, Dr. D. W 95, 130, 150, 151, 153, 154, 161, 175, 186
Bean, Dr. J. B 52
Bean & Maxson 179
Bean, Dr. T. H....27, 29, 33, 36, 42, 59, 91, 134, 138, 167, 169, 170, 174, 178, 184, 185
Bean, Dr. J. H.....38, 43, 59, 71, 81, 109, 134, 137, 156, 165, 168, 176
Beaty, J. H..... 106
Beckwith, U. S. A., Lt. E. G ..41, 44, 52, 53, 59, 61, 62, 65, 69, 112, 119, 120, 125, 136
Belding, L.....33, 38, 42, 45, 47, 50, 51, 53, 54, 55, 56, 57, 61, 63, 64, 66, 67, 68, 71, 73, 74, 75, 86, 92, 97, 98, 99, 107, 112, 142, 162, 163, 171, 172, 177
Bell, James.....27, 28, 75, 79, 81, 85, 89, 92, 101, 102, 104, 109, 110, 111, 114, 115, 123, 124, 133, 134, 135, 136, 137, 138
Bellman, C.....95, 145
Bendire, U. S. A, Capt. Chas 35, 36, 48, 65, 70, 76, 106, 107, 117, 119, 125, 126
Bereman, S. G 119
Bergland, U. S. A., Lt. E 54, 60
Bibb, Dr.....59, 179, 180
Bibb, Geo..... 167, 169
Bidwell, Dr. E. C 99, 109, 139, 179
Bischoff, F 49, 56, 106, 112
Bishop..... 60
Bishop, N. H..... 157
Birnie, U. S. A., Lt. R 61, 119, 180
Blackford, E. G..... 34
Blaney, Miss V 83
Boardman, E. R..... 102
Boardman, G. A..... 27
Boughter, Dr. G. W 98
Bowman, J. S 53, 65, 109, 110, 120, 125
Boyle, Dr. C. C 41, 45, 60, 70, 160
Brandt, H 40, 52, 68, 85, 89, 93, 122, 134, 138, 141
Brevoort, J. C 90
Brewer, Dr. C..... 53
Bridger, J. L..31, 32, 139, 144, 145, 174, 179

Page.
Broadhead, R. B..... 27
Brown, Dr 105
Brown, J 56, 60
Browne, J. S..... 181
Brugger..... 167
Bryan, U. S. A., Lt. F. T 65, 69, 93, 110, 112, 119, 120, 124, 125, 126, 141, 149, 169
Burr, Dr. R. T 48, 51, 57, 68, 69, 91, 96, 98, 107, 121, 141
Butcher, W..... 58

C.

Caldwell, Prof..... 129
Cameron, W. J 75
Campbell, A 142, 151
Canfield.....47, 70, 153, 155
Carpenter, U. S. A., Lt. W. L.....99, 117, 120, 122, 149
Carter, C. S..... 80
Cassiday, A..... 60
Central Pacif. Ex. Ep 171
Chase, A. W.....70, 75, 112
Chester..... 143
Churchill, U. S. A., Gen'l..... 44, 82
Clark, C. M..... 144
Clark, Frank N..... 30
Clark, G..... 144
Clark, J. H..... 40, 50, 61, 63, 67, 70, 79, 108, 126, 127, 149, 165, 168, 169, 178, 180
Clough, A 40, 77
Coffin 122
Cole, Charles 175
Connell, Peter.....33, 52, 141, 149
Connell R 68
Cooper, Dr. J. G.....38, 41, 47, 49, 65, 70, 80, 86, 89, 107, 110, 117, 119, 122, 126, 127, 128, 138, 159, 160, 163, 165, 166, 167, 169, 170, 171, 172, 177, 178, 180, 181, 184
Cooper, Dr. J. H 149
Cope, Prof. E. D 56, 110, 177
Cope & Yarrow.....118, 141
Cope, Yarrow & Shedd 68, 118, 122
Coppie, Henry..... 36
Corliss, U. S. A., Capt..... 48
Corson, U. S. A., Dr. J. K 38
Couch, U. S. A., Lt. B..29, 40, 41, 43, 44, 45, 50, 52, 57, 58, 59, 63, 64, 66, 67, 75, 89, 90, 91, 100, 101, 104, 106, 109, 111, 112, 113, 115, 116, 118, 120, 123, 124, 125, 131, 135, 141, 142, 143, 162, 164, 165, 168, 179, 180
Coues, U. S. A., Dr. E 52, 53, 67, 68, 69, 73, 77, 80, 83, 87, 89, 91, 92, 95, 106, 112, 113, 116, 117, 119, 124, 125, 132, 141, 154, 157, 161, 166, 175
Crafts, George..... 134

Page.
Crawford, U. S. A., Dr. S. W ...52, 66, 88, 101, 143, 164, 181
Crawford, U. S. A., Lt. E.....69, 77, 119
Crosir, J. G 47
Culbertson, T..... 181
Curtis, Dr. Josiah..... 165
Curtis, Rev. M. A.....43, 129, 146, 158
Cushing, F. H 80, 85
Cutts, R. D 39, 48, 62, 76, 92, 97, 109, 125, 128, 153, 160
Cuyler, R. R..... 85

D.

Dagins, J. W.....114, 154
Daniel, Maj. M. E 39
Daniel, Mrs. M. E 107, 129, 132, 140, 157
Darrell, J. H..... 156
Davis 109, 110
Davis, H 166
Davis, S. B.....91, 122, 130
Dayton, E. A..... 129
Denig, D. J..... 179
Department Agriculture 135, 146
Dickinson, William..... 144
D'Oca, R. M.....69, 81, 93, 115
Dowine, D. C..... 104
Drexler, C 49, 78, 107, 120, 129, 149, 150, 151, 153, 154, 163, 166, 179, 182, 185, 186
Duffy, P.....50, 52, 64, 66, 76, 95, 115, 141
Dugés, Prof. A..... 77
Duméril & Bibron..... 122

E.

Earl, R. E..... 44, 71
Edwards, U. S. A., Dr. L. A....67, 78, 80, 84, 89, 147, 149, 156
Edgworth, A. E..... 155
Edwards, V. N..... 125
Eisen, Gustave.....53, 87, 88, 92, 94, 96, 107, 112, 113, 142, 152, 160
Emory, U. S. A., Maj. W. H..43, 45, 46, 52, 54, 58, 63, 64, 66, 69, 71, 72, 81, 95, 97, 101, 105, 106, 111, 113, 117, 136, 140, 141, 181
Engelmann, Dr. George.....28, 37, 46 59, 89, 110, 115, 123, 130, 135, 136, 144, 152, 166, 169, 175, 182, 184, 186
Exploring expedition, Central Pacific..... 171
Exploring expedition, United States 47, 62, 87, 105, 110, 120, 152, 160, 186
Exploration west of 100th meridian.....49, 56, 57, 58, 61, 63, 66, 91, 119, 121, 165
Ervendberg, Prof. L. C 50

Page.
Eustis, U. S. A., Lt 39, 46, 83
Evans, Dr 123, 165, 179
Evans, John 59

F.

Fairie, James.....46, 74, 79, 80, 85, 88, 108, 136, 137, 145, 146, 147, 152, 182
Feilner, John 107, 172
Fish Commission, United States...65, 123, 154, 167, 185
Fitzgerald.....75, 83, 94, 122, 136
Forschey, Prof..... 118
Fox, Rev. C.....101, 126, 136

G.

Gambel, Dr. W...50, 53, 62, 64, 112, 119, 141
Gephart, A..... 147
Gesner, Dr.....168, 175
Gibbes, Dr. L. R..... 145
Gilbert, Dr..... 147
Girard, Dr. C.....30, 31, 125, 130, 164, 168, 169, 179
Glasco, J. N..... 84
Glover, T.....29, 30, 31, 109, 147
Goode, F. C.....27, 81. 85, 100, 102, 138
Goode, G. Brown 27, 32, 35, 38, 42, 44, 46, 78, 88, 89, 100, 102, 103, 105, 109, 110, 111, 123, 134, 139, 145, 164, 168, 169, 170, 174, 184
Goss, B. F.....40, 134
Gould, B. Y..... 33
Graham, U. S. A., Col. J. D 40, 49, 50, 56, 58, 60, 63, 64, 75, 77, 78, 80, 87, 93, 97, 98, 101, 108, 113, 115, 118, 125, 131, 135, 141, 142, 147
Gressner, D..... 111
Gross, U. S. A., Lt 170
Gruber, F..... 36
Gunn, D..... 176
Gunnison, U. S. A., Capt..... 144

H.

Hammond, U. S. A., Dr. J. F ..169, 179, 183
Hammond, U. S. A., Dr. W. A....40, 48, 53, 59, 61, 77, 89, 103, 109, 114, 117, 121, 123, 126, 127, 130, 139, 140, 141, 149, 163, 164, 165, 167, 169, 173, 174, 181
Hasson, J. A.....44, 53, 56
Harbifield, John M..... 84
Hayden, Dr. F. V.....29, 35, 40, 68, 77, 108, 123, 134, 141, 157, 162, 166, 169, 173, 179, 180, 181, 184
Hayward, F. W....30, 33, 143, 160, 180, 184
Haymond, Dr. R..132, 140, 153, 154, 179, 184
Hays, Dr 153
Head, U. S. A., Dr. J. F.....148, 179

Page.
Heermann, Dr. A. L.....41, 51, 54, 78, 88, 172, 176
Hemphill, K 41
Henderson, Dr..... 161
Henshaw, H. W 31, 45, 48, 49, 51, 52, 53, 56, 57, 60, 61, 63, 64, 65, 66, 68, 69, 70, 75, 76, 77, 78, 88, 90, 96, 98, 106, 107, 108, 109, 112, 113, 117, 118, 121, 122, 125, 126, 127, 128, 141, 142, 162, 163, 165, 170, 171, 172, 175, 181, 183, 185, 186
Hessel, Dr. R..... 134
Hildreth..... 152
Hirst, F 149
Hitchcock, Geo. N 36, 38
Hoffman, Dr. W. J..... 38
Holden, Capt. W.41, 81, 85, 88, 139, 155, 160
Horan, Henry 135
Horn, J. H..... 86
Hough, Dr. F. B..... 91
Howard 43, 61, 69, 141
Howard, J. W 27
Howell, E. E 125, 161
Hoy, Dr. P. R.....79, 102, 108, 116, 123, 124, 129, 130, 134, 150, 166, 174, 175, 179, 182, 183, 185, 186
Hunter, Dr..... 94

I.

Ingersoll, E 149
Irwin, U. S. A., Dr. B. J. D 66, 69, 73, 74, 75, 76, 80, 88, 97, 98, 113
Ives, U. S. A., Lieut. J. C.....56, 57, 64, 66, 68, 69, 89

J.

Jackson, E. E 43, 142
Jarvis, U. S. A., Dr.....78, 89, 95, 138
Jaynes, Dr. L. N..... 91
Jeffers..... 78
Jeffrey, Dr. R. W 35, 43, 62, 71, 72, 85, 111, 173
Jewett, Col..... 81
Johnson, C. E 65
Johnson, S. M 109
Jones, Dr. W. L.....46, 49, 81, 85, 104, 110, 124, 132, 133, 136, 143, 144, 145, 146, 147, 155, 157, 160, 161, 164, 168
Jordan, Prof. D. S .48, 70, 100, 106, 121, 133
Jordan & Gilbert..... 149
Jouy, P. L 31, 36, 41, 165

K.

K. C. A 149
Kearney, U. S. A., Col 74, 75, 81, 89
Keenan, T. J. H 75
Keenan, Miss T. J. R 124

Page.
Kellogg, F.....115, 140
Kennerly, Dr. C. B. R.....29, 30, 31, 37, 40, 43, 44, 47, 48, 50, 52, 55, 58, 67, 76, 77, 90, 93, 115, 120, 123, 127, 128, 131, 138, 142, 144, 151, 152, 154, 155, 159, 163, 168, 169, 171, 172, 180, 181, 182, 183, 185
Kennicott, R.....28, 30, 35, 41, 60, 89, 99, 100, 101, 102, 114, 122, 123, 131, 132, 135, 137, 138, 144, 147, 148, 152, 154, 155, 157, 160, 161, 163, 166, 167, 169, 170, 174, 175, 178, 179, 180, 181, 182, 183, 185, 186
Kern, R. H.....58, 149
Kirtland, Dr. J. P.....79, 96, 144, 147
Kite, U. S. N., Dr. J. A..... 63
Kohler, John 73, 98
Kohn, G 32, 33, 136, 156
Kumlien, A. L.....30, 71, 92, 135, 161
Kumlien & Bean ...43, 79, 82, 134, 166, 173

L.

Le Conte, Dr. J. L.....45, 87, 95, 142, 149, 160, 162, 169, 170, 172
Le Conte, Maj. J.....47, 59, 162, 164, 168, 170, 171, 173, 174, 175, 176, 178, 183
Leonard, H. A..... 179
Lesquereux, Prof. L.....130, 144, 147, 148, 152, 157, 158, 159, 166, 174, 179, 183, 184
Lightburne, Dr. R. E 53, 65, 92, 112
Linebach, J. T.....108, 158, 159, 166, 169, 175, 180, 183
Linebach & School 124
Lindheimer, Dr. F 101, 110, 111, 135, 169, 173, 174
Lloyd, D. C.. 93, 103, 122, 139, 140, 164, 174
Lloyd, R. V 114
Loew, Dr. O.....43, 52, 56, 57, 61, 62, 63, 64, 68, 70, 96, 99, 106, 111, 113, 117, 118, 119, 120, 122, 141, 164, 175, 180
Longfield, Frank..... 106
Loud, S. H 148

M.

Mann, Rev. C.....91, 147
Manteufel, U. S. A., Hosp. Stew. W. F. von 88, 97, 104, 123
Manigault, Dr. G. E..... 32, 75
Marcy, U. S. A., Capt. R. D....49, 52, 90, 93, 111, 115, 118, 140, 165, 184
Marnock, G. W.....121, 176
Marshall, Geo 138
Marshall, Henry..... 138
Marshall, Miss..... 91
Martin, C. C.....159, 166
Mason..... 83
Mather, Fred.....34, 43, 59, 161, 175, 183

Page.
McClean, F. P..... 102
McClellan, U. S. A., Capt. G. B.... 106
McDonald, M.....110, 180
McNair, J. C.....81, 84, 103, 114, 122, 129, 139, 175
McRae, Donald..... 145
Meek, Prof. F. B.....37, 42, 44, 71, 82, 103, 114, 164, 168, 173
Merriam, C. Hart..... 68
Merrill, U. S. A., Dr. J. C.....29, 32, 33
Miller, J. D 74
Milner, J. W.....28, 32, 33, 34, 38, 39, 60, 80, 91, 92, 100, 102, 103, 116, 123, 126, 129, 130, 132, 134, 135, 136, 139, 144, 147, 161, 167, 169, 173, 175, 182
Minos, Capt 47
Mitchell, Prof. J. B..... 132
Mitchell, Prof. J. H.....41, 43, 60, 175
Mollhausen, H. B 31, 45, 51, 53, 54, 67, 68, 94, 98, 112, 116, 119, 124, 162, 163, 166, 167, 169, 180, 181, 184
Moore, N. B 39
Moran, Dr. G. A..... 81, 88
Moran, Dr. G. N 157
Morris, Rev. J. S..... 132
Mullen, U. S. A., Lt. J 39, 127, 172
Mus. d' Hist. Nat., Paris 86, 90
Museum, Wesleyan University.95, 114, 123

N.

National Museum Mexico 149
Newberry, Dr. C. G ...42, 47, 49, 52, 56, 57, 58, 63, 68, 77, 92, 105, 112, 119, 149, 165
Newberry, Dr. J. G 60, 70, 150
New Orleans Academy.....39, 43, 81, 93, 155, 159, 166
Northwest University..... 90

O.

Odell, E. F. 74, 79, 99, 108, 139, 186
Owen, Dr 130
Owen, Prof. R.....110, 138, 144, 146, 155, 158, 184

P.

Paine, Jas..... 115
Paine, Miss C.....85, 94, 95, 103, 110, 174, 183, 185
Palmer, Capt..... 139
Palmer, Dr. E.29, 32, 46, 53, 65, 69, 77, 82, 88, 91, 96, 97, 108, 110, 111, 117, 119, 140, 149
Palmer, J..... 60
Palmer, J. D 27, 166
Palmer, Wm.....31, 83, 89, 132, 138
Paris Museum 86, 88
Postell, J. P 90, 108, 124, 178

Page.
Peichardière, de la O 130
Phillips, Wm.....42, 129, 134, 135, 157
Pilichody.....59, 169
Pillsbury, J. H..... 124
Polner, Wm 124
Pope, U. S. A., Capt. John.....29, 33, 40, 43, 50, 56, 61, 64, 66, 68, 76, 77, 78, 80, 84, 87, 88, 94, 95, 101, 104, 115, 118, 135, 137, 140, 164, 181
Potts, John.....52, 64, 67, 127, 133, 148, 150, 177
Pourtalés, A..... 90
Powell, Samuel..... 95
Prindle, Edwin.....153, 154

Q.

Quin, H. E 136

R.

R. * * * Major..... 172
Reese, C. W 84
Reuss, Dr. A 85, 129, 130, 138, 139, 140, 147, 151
Reynolds, U. S. A., Capt..... 119
Reynolds, Dr..... 69
Reynolds, U. S. A., Lt..... 120
Reynolds & Hayden 68, 149
Rhees, W. W 83
Richard, J. H.....166, 182, 183
Ridgway, Robert.....28, 29, 30, 32, 33, 39, 52, 53, 77, 93, 101, 102, 109, 110, 120, 125, 126, 130, 135, 137, 142, 152
Riggs, A. L.....126, 166
Rigg, S. R..... 149
Robinson, Jr., C.....89, 135
Roberts, N. E 37
Roberts, W. F 111
Rothrock, Dr. J. T 150, 163, 170
Rutter, J. H.....49, 63, 64, 66, 68, 113, 179
Rutter, J. M 149, 165
Ryder, J. A..... 44

S.

Saint Louis Academy 83
Saint Charles College.....42, 63, 71, 78, 80, 84, 115, 143, 173, 175, 179
Sager, A..... 148
Samuels, E.....47, 60, 87, 95, 110, 112, 125, 150, 153, 158, 171, 182
Sanford, C..... 114
Sargent, J. B 96, 105, 138
Sartorius, Dr 98
Sayer, C..... 154
Scarborough, J. N. B.....33, 41, 59, 60, 83, 123, 134, 135, 155, 156, 157, 158, 159, 160, 161, 175
Page.
Schuermann, C. W.....30, 44, 63, 67, 118
Schott, A.....29, 31, 54, 63, 73, 74, 75, 82, 84, 86, 87, 104, 108, 112, 113, 167
Schneck, J 30, 33, 34, 37
Schumacher, P 76, 107, 128
Schumaker, W. L..... 92
Seagrave, O. B..... 90
Sickels, William.....60, 65, 162
Semer, Dr 89
Sennett, Geo. B.....67, 115, 118, 142
Sercomb..... 84
Shaw..... 184
Sheldon, D. S..... 105
Shedd, W. H.....62, 122, 180
Shepherd, J. R 39, 123
Shepherd, R. T 89, 91, 95, 99, 109, 123, 129, 130, 131
Shoemaker, Geo.....132, 134, 175
Shoemaker, Chas 89, 135
Shumard, Dr. B. F. 41, 42, 46, 63, 66, 74, 75, 79, 83, 89, 90, 91, 101, 115, 129, 130, 138, 144, 145, 148, 152, 161, 162, 166, 169, 173, 179, 184
Simpson, U. S. A., Capt. J. H 49, 74 76, 79, 126, 127, 129, 132, 165
Sitgreaves, U. S. A., Capt. L..... 53, 136
Skilton, Dr. A. J 48, 95
Skul, F. D..... 136
Smith, A. W..... 135
Smith, E. K..... 179
Smith, E. R..... 176
Snell, J. C. H 75
Snyder, J. A..... 52
Somers, Wm.....43, 44, 52, 56, 118
Sommer, G. H 48
South Pass, W. R. Expedition 93
Spielman..... 145
Stabler, J. P..... 91, 92
Stagg 166
Stansbury, U. S. A., Capt. H..... 56, 65
Stauffer, J.....150, 153, 155
Steele, W. N..... 91
Stevens, D..... 154
Stevens, Dr.....146, 147, 157, 159
Stevens, George 128, 139
Stevens, Governor 47, 61, 66, 70, 76, 109, 113, 117, 124, 125, 127, 179
Stevenson, F. V.....78, 81
Stewart, W. N...41, 59, 71, 88, 125, 134, 175
Stimpson, Dr. Wm 125, 130, 152, 154, 160, 169
Stone, L..... 47
Streets, U. S. N., Dr. T. H.....38, 51, 57, 68, 73, 75, 82, 106, 171

Page.
Suckley, U. S. A., Dr. Geo....36, 61, 68, 76, 96, 101, 105, 106, 119, 120, 123, 127, 132, 138, 140, 141, 142. 151, 160, 167, 171, 172, 179, 180, 181
Sudworth, G. B..... 131
Sumichrast, Prof. F.....46, 128, 129, 130
Swan, J. G..... 151
Sweeny.....147, 148
Swift, U. S. A., Dr. E.....67, 88, 131, 149

T.

Taylor..... 63
Taylor, A. S.....36, 39, 158
Taylor, Dr. A. W..... 66
Taylor, Dr. S. M..... 88
Taylor, Wm. J....44, 71, 81, 84, 92, 135, 138
Thickstun, J. F.....124, 146, 166, 174, 184
Thomas, U. S. A., Maj. G. H.....54, 112
Toner, Dr. J. M..... 27
Townsend, J. K.....50, 56, 64
Townsend, J. R..... 90
Treat, Mrs. Mary..... 138
Trembly, Dr. J. B.....114, 144, 182, 185
Trowbridge, U. S. A., Lt. W. P....70. 109, 119, 122, 142, 152, 158, 160, 171, 185
True, F. W..... 34, 36
Tunnison, Miss Helen.....30, 78, 103, 135, 166, 175, 178, 182, 184
Turner, L. M.....30, 33, 34, 35, 39, 42, 46, 82, 83, 84, 89, 93, 94, 100, 102, 103, 115, 116, 123, 129, 130, 136, 137, 138, 140, 144, 147, 152, 159, 161
Turner, Mrs. M. E..... 33
Turner, Samuel.....139, 144, 152
Turpe, Albert..... 143

V.

Van Vliet, U. S. A., Capt. S.....118, 180
Varden, J..... 147
Vaughan, Col. J. D.....106, 126
Velie, J. W..... 37
Vollum, U. S. A., Dr. E. P.....76, 163, 171

W.

Walker, S. T.....27, 35, 38, 39, 44, 46, 60, 72, 78, 79, 90, 95, 103, 104, 109, 111, 114, 115, 123, 133, 138, 139
Wailes, B. L. C.....35, 37, 41, 108, 134, 135, 155, 159, 167, 168, 173, 175, 182
Ward, H. A..... 27
Warren, Dr. J. R.....68, 126
Warren, U. S. A., Lt. G.....125, 126, 127, 149, 169, 181
Warner, M..... 79
Webb, Dr. Thos....49, 50, 58, 70, 75, 82, 85, 117, 121, 122, 128, 132, 148, 162, 164, 177
Page.
Welsh, David..... 133
Welsher, H. W....32, 37, 72, 80, 85, 100, 110, 130, 133, 135, 136, 138, 143, 144, 157, 167
Welsher & Milner..... 159
Welsher & Quin..... 43, 60
Weston, P. J. C....85, 110, 111, 132, 136, 164
Weyreck, Dr.....110, 140
Wheaton, Dr. J. M..... 123
Wheeler, Dr..... 89, 90
Whipple, U. S. A., Lt. A. W...43, 52, 56, 64, 66, 68, 69, 75, 85, 96, 101, 106, 112, 134, 181
Whittlesey Major..... 144
Wilcox, U. S. A., Dr. J. E..... 52
Williams, Prof.....156, 157, 159, 161, 183
Williamson, U. S. A., Lt. R. S..53, 54, 63, 92, 108, 109, 119, 122, 123, 125, 126, 128, 142
Winchell, Prof. A.....41, 43, 59, 71, 122, 125, 140, 164, 166, 174, 183
Windham, Dr. S. W..... 69
Wilson, Wm. M..... 60
Wittich, Willis..... 151
Wittfield, Wm.....44, 46, 60, 72, 81, 90, 100, 102, 103, 109, 114, 134, 136, 173
Wood, J. W.....46, 129
Wood, W. S.....34, 35, 69, 77, 80, 99, 108, 116, 120, 126, 127, 141, 165, 166, 167, 169, 175, 180, 181, 182, 184
Wood, W. T..... 119
Woodhouse, Dr. S. W.....43, 47, 50, 51, 52, 63, 67, 69, 75, 93, 137, 138, 149, 162, 166, 178
Wooster, A. F.....154, 161, 167
Woodworth, Dr. J. N.....59, 175
Woodworth, O. H..... 65
Wormley, Dr..... 144
Wright, C.....28, 59, 72, 83, 114, 174, 183
Wright, H. B..... 146
Wurdemann, G.....29, 30, 31, 33, 34, 38, 39, 41, 43, 46, 63, 65, 71, 72, 91, 98, 103, 115, 118, 134, 138, 164, 168, 178

Y.

Yarrow, Dr. H. C.27, 28, 31, 40, 43, 44, 46. 48, 49, 52, 53, 56, 57, 59, 60, 61, 62, 63, 64, 65, 68, 69, 73, 77, 96, 100, 106, 107, 110, 112, 118, 119, 120, 122, 134, 140, 163, 164, 165, 166, 167, 170, 175, 177, 179, 180, 181, 182
Yarrow, John.....49, 68, 165
Yarrow & Aiken..... 106

X.

Xantus, J.....28, 36, 42, 45, 47, 49, 54, 55, 60, 62, 64, 70, 71, 73, 74, 75, 76, 86, 88, 92, 97, 98, 107, 113, 117, 121, 132, 133, 142, 154, 162, 172, 177

GENERAL INDEX.

Page.

A.

Abastor erythrogrammus 13, 85
Abbeville 29, 41, 140, 146, 147, 155, 157, 159, 160, 161, 166, 174
Abbott, Dr. C. C 36, 157
Abbott, R. O 71, 75
Abiquiu 43, 49, 62, 68, 99, 119, 180
Academy, Charleston 143
Acad. Nat. Sci., New Orleans ... 43, 79, 81, 89, 152, 155, 166, 184
Acad. Nat. Sci., Phila 126, 151
Acris gryllus crepitans 23, 169
gryllus gryllus 23, 169
Adams, Prof. C. B 28, 41, 42, 71, 72, 94, 103, 145, 173, 174
Adirondack Mountains 124, 125
Advertisement II
Agassiz's Gopher 7
Agassiz, Prof. L .. 66, 102, 136, 173, 174, 178
Agassiz's Soft-shelled Turtle 5
Agricultural Department 91, 135, 146
Aiken, C. E 105, 107, 108, 119
Alabama 71, 125, 164, 175
Northern 41, 59, 134
Sprout River 102
Alamos de Parros 50, 64, 66, 111
Alaska, Puget Sound 171
Albuquerque 56, 124, 180, 181
Alderman Lizard 9
Aldrich, Charles 29, 30, 34, 96, 99, 101, 148, 179
Alexander County 36
Alleghany County 146, 147, 154, 159
Allen, Prof. J. A 77, 106, 109, 141
Allen's Snake 19
Alligator 5
Lizard 10
mississippiensis 5, 27
Snapping Turtle 5
Alpine region of Mexico 128, 129
Alto dos Utas 177
Amblystoma aterrimum 21, 152, 192
bicolor 20, 148, 192
cingulatum 21, 192
conspersum 20, 148
jeffersonianum fuscum 21, 151, 192

Page.

Amblystoma jeffersonianum jeffersonianum 20, 150
jeffersonianum laterale 21, 150, 192
jeffersonianum platineum 21, 151
macrodactylum 21, 151
mavortium 20, 149
mavortium californiense 20, 150, 192
microstomum 21, 152
obscurum 20, 192
opacum 20, 147
paroticum 20, 151
punctatum 20, 147
talpoideum 20, 146
tenebrosum 21, 152
texanum 21, 192
tigrinum 20, 148
trisruptum 20, 150
xiphias 20, 192
America, British 185
American Crocodile 5
Toad 23
Amphiuma means 20, 145
Amyda 26
mutica 5, 28
Anaides ferreus 22, 159, 193
lugubris 22, 158
Ancistrodon atrofuscus 13, 190
contortrix 12, 80
piscivorus piscivorus. 12, 79
piscivorus pugnax ... 12, 80
Anderson County 110
Anderson, Dr. H. J 100, 101
Anderson's Hyla 24
Anderson, South Carolina 39, 41, 72, 83, 85, 88, 91, 94, 95, 100, 103, 129, 132, 139, 140, 157, 164, 166, 172, 174, 175, 183, 185
Anderson, U. S. A., Capt. R 61, 69, 120, 166, 174
Anderson, Dr. W. W 114
Andrews, Prof. E. B 33, 78, 89, 95, 110, 124, 134, 147, 166, 179, 184
Androscoggin 125
Angel Island 51

Page.
Aniella pulchra 7, 39
Ann Arbor 174
Anolis cooperi 11, 72, 189
principalis 11, 71, 72
Antelope Creek 135, 167
Anthracite Skink 7
Anton Chico 105
Apalachicola 90
Aploaspis lepida 12, 189
Appomattox County 90
Arispe 119
Arizona 31, 41, 43, 48, 49, 51, 52, 53, 56, 57, 58, 65, 66, 68, 70, 77, 78, 82, 88, 91, 106, 110, 112, 119, 149, 162
Arizona Coach-whip Snake 16
Diamond Rattlesnake 12
King Snake 14
Skink 7
Southeastern 63, 66, 98, 108
Southern 56, 61, 78, 92, 108, 113, 141
Valley 86
Arkansas 46, 74, 75, 78, 80, 81, 89, 93, 103
King Snake 14
River 93, 137, 144
and Cimarron, between .. 108, 126
River, North Fork 108
Arlington, Florida 42, 44, 46, 78, 85, 88, 89, 100, 102, 103, 109, 110, 111, 123, 134, 138, 139, 145, 164, 169, 170
Virginia ... 83, 100, 124, 132, 134
Arny's Ring-necked Snake 15
Arny, S 96
Arny, Gen. W. F. M 52, 149
Aromochelys carinata 6, 30
odorata 5, 30
Ash Creek 31
Ashy Lizard 21
Aspidonectes asper 5, 187
emoryi 5, 29
ferox 5, 29
nuchalis 5, 187
spinifer 5, 29
Astoria 151, 152, 160, 185
Athabasca River 179
Athens 88
Atlantic Green Turtle 5
Hawks-bill Turtle 5
Augusta, Georgia 39, 42, 60, 80, 83, 91, 95, 100, 103, 129, 134, 135, 157
Austin 69
Aux Plains, Illinois 130, 166

Page.
Aux Plains River 157, 173, 183
Mississippi 41
Wisconsin 99, 100, 123
Avoca 116, 123, 135, 136
Axolotl 20
Aztalan 169, 183

B.

Bailey, Professor 173
Bailey's Salamander 21
Bainbridge 36, 182
Baird, Prof. S. F 30, 32, 34, 35, 36, 39, 42, 71, 80, 83, 90, 95, 99, 102, 110, 114, 115, 116, 122, 123, 124, 129, 130, 132, 134, 135, 138, 140, 144, 146, 147, 148, 153, 154, 156, 157, 158, 159, 161, 164, 166, 167, 168, 169, 174, 179, 182, 183, 184, 185
Baird's Coluber 16
Lizard 9
Toad 23
Triton 22
Baker, E. B 133
Ball's Cross-Roads 89
Baltimore 91, 132
Banded Hyla 24
Miter Snake 14
Rattlesnake 12
Water Snake 18
Banks, M 144
Baraboo 46, 139
Barbadoes 81
Barissia olivacea 8, 46, 188
Barker, A. L 91
Barker, Dr. S. B 59, 75, 84, 90, 91, 108, 133, 136, 139, 145, 168, 170
Barnabuls 185
Barnes, A 119
Barnes, W. H 114, 123
Barratt, Dr. J. B 39, 140, 146, 147, 157, 160, 161, 166, 174
Barringer, A. L 36, 84, 109, 130, 138, 140
Barry 60
Barry, Rev. A. C 61, 99, 123, 126, 134, 144, 169, 180, 183
Bascanium anthicum 16, 191
aurigulum 17, 113, 191
constrictor 16, 108, 109, 110
constrictor flaviventris 16, 110
flagelliforme flagelliforme 16, 111
flagelliforme piceum ... 16, 111
flagelliforme testaceum 17, 111, 112
tæniatum laterale 17, 113

Page.
Bascanium tæniatum ornatum 17, 113
tæniatum tæniatum...17, 112
Bastard Loggerhead 5
Batrachoseps attenuatus.....21, 152
nigriventris 21, 153
pacificus.....21, 153
Beach, Miss A 69
Beadle, Dr. D. W.....95, 130, 150, 151, 153, 154, 161, 175, 186
Bean, Dr. J. B 52
Bean & Maxson 179
Bean, Dr. T. H.....27, 29, 33, 36, 42, 59, 91, 134, 138, 167, 169, 170, 174, 178, 184, 185
Bean, Dr. J. H.....38, 43, 59, 71, 81, 109, 134, 137, 156, 165, 168, 176
Beaty, J. H..... 106
Beaufort, North Carolina..... 28
South Carolina 164, 173
Beaver County..... 176
Beaver, Utah 59, 68, 120,
Beckwith, U. S. A., Lt. E. G.....41, 44, 52, 53, 59, 61, 62, 65, 69, 112, 119, 120, 125, 136
Bedford 90, 122
Beesley's Point.....32, 34, 83, 148
Salamander..... 20
Belding, L.....33, 38, 42, 45, 47, 50, 51, 53, 54, 55, 56, 57, 61, 63, 64, 66, 67, 68, 71, 73, 74, 75, 86, 92, 97, 98, 99, 107, 112, 142, 162, 163, 171, 172, 177
Belding's Toad..... 23
Bell, James.....27, 28, 75, 79, 81, 85, 89, 92, 101, 102, 104, 109, 110, 111, 114, 115, 123, 124, 133, 134, 135, 136, 137, 138
Bell's Turtle..... 6
Belleville.....59, 124, 129, 130, 134, 138, 139, 140, 147, 151
Bellman, C.....95, 145
Bendire, U. S. A., Capt. Chas.35, 36, 48, 65, 70, 76, 106, 107, 117, 119, 125, 126
Benicia..... 162
Benton 127
Bereman, S. G 119
Bergland, U. S. A., Lt. E 54, 60
Berks County 30
Berlandier's Frog 25
Bermuda 42, 156
Bermuda Skink..... 8
Bibb, Dr.....59, 179, 180
Bibb, George.....167, 169
Bidwell, Dr. E. C 99, 109, 139, 179
Big Bend of Truckee....52, 53, 77, 125, 142
Big Blue River 80
Big Windy River..... 141
Biloxi..... 145
Page.
Biscayne Bay..... 27
Bischoff, F 49, 56, 106, 112
Bishop 60
Bishop, N. H..... 157
Birnie, U. S. A., Lt. R 61, 119, 180
Bitter Root Valley..... 127
Bitterwood Valley..... 125
Black-bellied Lizard 21
Black-breasted Lizard 8
Black Chaser..... 16
Blackford, E. G..... 34
Black Garter Snake..... 18
Black-headed Tantilla 13
Black Hog-nose Snake..... 19
Rattlesnake 12
River, Elyria 184
Snake 16
Black-spotted Tree Frog 23
Black-tailed Rattlesnake..... 12
Uta 10
Black Tree Frog 23
Triton 22
Viper 19
Blaney, Miss V 83
Blainville's Horned Lizard..... 11
King Snake..... 15
Blanding's Terrapin 7
Blotched King Snake 15
Blowing Viper..... 19
"Bloody Nouns" 25
Blount County 124
Blue Mountains, Oregon 76
Blue River 170
Blue-tailed Skink..... 7
Blue Worm Snake 7
Blunt-tail Skink..... 7
Bodega..... 70
Boll's Spotted Lizard 9
Bonito Cañon.....52, 149
Bordman, E. R..... 102
Bordman, G. A..... 27
Boston 174
Boughter, Dr. S. W 98
Boundary Survey..... 47
Bowman, J. S.....53, 65, 109, 110, 120, 125
Box Elder..... 68
Tortoise..... 7
Boyd's Garter Snake 17
Boyle, Dr. C. C 41, 45, 60, 70, 160
Botta's Worm Snake..... 19
Bradford County.....36, 159, 166
Brandt, H.....40, 52, 68, 85, 89, 93, 122, 134, 138, 141
Brazos River.....42, 63, 66, 74, 76, 89, 101, 102, 108, 130, 161, 162

Page.
Brevoort, J. C 90
Bremer, Dr. C 53
Bridger, J. L...31, 32, 139, 144, 145, 174, 179
Bridger's Pass 41, 69, 77, 93, 99, 116, 120, 123, 127, 149
near 108
British America 185
Broadhead, R. B 27
Brookhaven, Massachusetts 124
Mississippi 75
Brookville, Georgia 174
Indiana 59, 132, 140, 153
Iowa 139
Pennsylvania 179, 184
Brown-back Ground Lizard 7
Brown, Dr 105
Brown, J 56, 60
Brown Queen Snake 18
Brown Salamander 21
Brown Snake 13
Brown Triton 22
Browne, J. S 181
Brownsville 27, 29, 32, 33, 63, 78, 90, 98, 104, 110, 115, 118, 164, 168, 176, 180
Brown Water Snake 19
Brugger 167
Brunswick, Georgia 104
Maine 99
Bryan, U. S. A., Lt. F. T 65, 69, 93, 110, 112, 119, 120, 124, 125, 126, 141, 149, 169
Bryan's Fork 126
Bufo alvarius 23, 193
beldingi 23, 163
columbiensis 23, 163
copeii 23, 163
debilis 22, 162
halophilus 23, 162
lentiginosus americanus..23, 166, 167
lentiginosus cognatus 23, 165
lentiginosus fowleri 23, 167
lentiginosus frontosus 23, 165
lentiginosus lentiginosus.23, 164, 165
microscaphus 23, 163
pictus 23, 164, 193
punctatus 22, 162
quercicus 23, 168
speciosus 23, 164
valliceps 23, 168
Bull Frog 25
Snake 16
Burlington, Vermont 144, 150
Burr, Dr. R. T 48, 51, 57, 68, 69, 91, 96, 98, 107, 121, 141
Butcher, W 58

C.

Page.
Cache Creek 96
Cache la poudre River 77, 119
Cadaverous Hyla 24
Caderita 63, 90
Cairo 124, 179
Calcasieu 134
Calcasieu Pass..39, 46, 90, 108, 115, 138, 168
Caldwell, Professor 129
California 41, 47, 48, 50, 52, 53, 54, 59, 60, 61, 63, 66, 70, 76, 107, 112, 119, 122, 125, 126, 141, 152, 153, 158, 160, 171, 172, 176, 177
Axolotl 20
Dragon 9
Garter Snake 18
King Snake 14
Lower 57
Mountains 166
Mud Turtle 6
Rattlesnake 12
Rena 20
Red-backed Alligator Lizard 11
Region, Upper 162, 166
Ring-necked Snake 15
Southern 43, 53, 56, 60, 63, 106, 117, 121, 171, 175, 186
Terrapin 7
Callisaurus dracontoides dracontoides 9, 50, 188
dracontoides gabbi ... 9, 189
dracontoides ventralis. 9, 51
Camak 167
Cambridge 99, 178
Frog 25
Cameron, W. J 75
Camp Apache 49, 51, 52, 57, 58, 61, 64, 68, 77, 96, 112, 122, 165
Campbell, A 142, 151
Camp Bidwell 121, 125
Bowie 66
Brent 97
Crittenden 49, 56, 63, 162, 179
Grant .43, 77, 88, 96, 108, 111, 113, 117
Harney 76
J. A. Rucker 48, 57
Lowell 43, 66, 68
Mohave 38, 52, 53, 65, 86, 92, 96, 112, 167
Packer 107
Supply 52, 66
12, Nevada 53, 65, 77, 107, 120
Warner 120
Warren 69

Page.
Canadian River.....94, 112, 166
River North..... 88
Canfield.....47, 70, 153, 155
Canoe Creek Valley..... 125
Cañon Creek..... 112
Canonsburg..... 158
Cantonment Burgwyn.....120, 166
"Caoune"..... 5
Cape Flattery.....61, 163
Punta..... 72
Saint Lucas.....28, 41, 42, 45, 54, 55, 57, 64, 66, 67, 70, 71, 73, 74, 75, 86, 92, 97, 98, 107, 113, 121, 132, 133, 142, 177
Saint Lucas Hyla..... 24
Spade Foot..... 25
Striped Lizard.. 8
Triton..... 21
Carlisle.....30, 42, 74, 80, 95, 99, 102, 110, 114, 132, 134, 138, 140, 147, 148, 153, 155, 157, 158, 159, 161, 166, 169, 173, 179, 182, 183, 184, 185
Carolina Hyla..... 24
Tree Frog..... 23
Carpenter, U. S. A., Lt. W. L.....99, 117, 120, 122, 149
Carphophiops amœnus..... 13, 83
helenæ..... 13, 82
vermis..... 13, 83
Carson.....112, 126
Carson's Pass..... 52, 61
River..... 65
Carson Valley..... 120
Carter, C. S..... 80
Cartersville..... 85
Cassiday, A..... 60
Castaneulas.....50, 66, 106, 162
Cat Island.....71, 134, 136
Caudisona edwardsi..... 12, 78
miliaria..... 12, 78
rava.....12, 190
tergemina..... 12, 79
Cave Spring..... 49, 56
Cedar Keys..... 91
Cemophora coccinea..... 14, 88
Central Illinois..... 94
Central Pacific Exploring Expedition..... 171
Central Park, New York..... 167
Centre County..... 167
Centerville.....123, 129
Cerros Island.....57, 171
Chain Snake..... 14
Chameleon..... 11
Hyla..... 24
Charco Iscendido.....63, 118, 180
Page.
Charina bottæ.....19, 191
plumbea..... 19
Charleston, S. C.....29, 30, 31, 32, 39, 41, 46, 59, 71, 75, 78, 79, 80, 81, 84, 90, 91, 108, 123, 125, 133, 136, 138, 139, 143, 145, 155, 164, 165, 166, 168, 169, 170, 179, 184
Charlotte Harbor.....91, 133
Chase, A. W.....70, 75, 112
Cheat River..... 102
Chelonia mydas..... 5, 28
virgata.....5, 28, 187
Chelopus anonymus..... 26
guttatus.....7, 26, 36
insculptus..... 7, 36
mamoratus..... 7, 36
muhlenbergi..... 7, 36
Chelydra serpentina..... 5, 30
Chestnut-backed Lizard..... 21
Cheston..... 143
Cheyenne Pass.....149, 181
Chicago.....30, 37, 110
130, 131, 147, 148
Chicken Snake..... 14 16
Turtle..... 6
Chihuahua.....52, 64, 82, 117, 148, 162, 181
Chilomeniscus cinctus.....13, 86, 190
ephippicus..... 13, 86
stramineus..... 13, 86
Chilopoma rufopunctatum.....17, 113, 191
Chilowyuck.....151, 163
Chilowyuck Lake.....151, 152, 171
Chionactis occipitalis.....13, 86, 190
occipitalis annulata.14, 86, 190
Chirotes..... 7
canaliculatus..... 7, 38
Choctaw Nation, Sans Bois..... 75
Chorophilus angulatus.....23, 193
nigritus.....23, 170
ocularis.....24, 170
ornatus.....24, 171
triseriatus clarki.23, 170, 193
triseriatus corporalis.23, 193
triseriatus triseriatus.23, 170
Chrysemys belli.....6, 26, 35
dorsalis.....6, 26, 35
marginata.....6, 26, 35
oregonènsis..... 26
picta..... 6, 34
reticulata..... 6, 35
Chula..... 85, 99
Churchill's Garter Snake..... 18
Churchill, U. S. A., General..... 44, 82
Cienegia..... 49
Cimarron..... 126
River.....46, 100

Page.
Cimarron River, mouth of..... 149
Cincinnati 155, 156, 157, 160, 161
City of Mexico..... 172
Clairborne County..... 175
Clark's Alligator Lizard..... 11
Clark, C. M..... 144
Clark County.....67, 83, 90, 123, 138, 139, 154, 155, 183, 185
Clark, Frank N..... 30
Clark, G 144
Clark, J. H 40, 50, 61, 63, 67, 70, 79, 108, 126, 127, 149, 165, 168, 169, 178, 180
Clark's Snake..... 18
Clarkson, Michigan..... 144
Clark's Tree Frog..... 23
Clearbon 159
Clearwater 27, 30, 35, 38, 39, 44, 46, 60, 72, 78, 79, 84, 90, 95, 100, 103, 104, 109, 111, 114, 115, 123, 133, 136, 138, 139
Cleveland 96, 144, 147
Clough, A 40, 77
Cinosternum flavescens 6, 31
henrici 6, 31, 187
pennsylvanicum doubledayi 6, 187
pennsylvanicum 26
pennsylvanicum pennsylvanicum..... 6, 31
sonoriense..... 6, 31
Cistudo carolina 7, 26 37
carolina triunguis 7, 37
ornata 7, 37
Cnemidophorus grahami..... 8, 43
inornatus..... 8, 188
maximus.....8, 42, 188
octolineatus..... 8, 188
perplexus..... 8, 44
sexlineatus.....8, 43, 44
tessellatus gracilis. 8, 45
tessellatus melanostethus 8, 45, 188
tessellatus tessellatus.....8, 44, 188
tessellatus tigris... 8, 45
Coach-whip Snake..... 16
Coahuila 45, 63, 165
Cobalt..... 109
Cobre Mines..... 141
Coffin 122
Cole, Charles 175
Coleonyx variegatus..... 11, 72
Colorado.... .....53, 54, 68, 69
and Zuñi survey 54, 63, 65, 66, 69, 136

Page.
Colorado Chiquito.....45, 56, 106
Desert.....45, 54, 86, 92
Desert Lizard..... 9
River..... .... 45, 51, 52, 54, 56, 57, 63, 64, 73, 78, 112, 115, 181
River Basin..... 63
River Bottom 105
River, crossing of..... 68
River, Little 66, 69, 112
River, near..... 165
River, north of..... 94
Springs.....49, 68, 69, 165
Collared Lizard..... 9, 10
Miter Snake 14
Coluber bairdi 16, 104, 191
emoryi 16, 101
guttatus.....16, 103
lindheimeri 16, 101
obsoletus confinis 16, 103
obsoletus obsoletus.....16, 102
quadrivittatus.....16, 102
vulpinus 16, 101
Columbia County..... 161
District of..30, 36, 37, 60, 89, 135
River 76, 106, 163, 165
South Carolina 42, 143, 157
Toad 23
Columbus, Georgia.89, 95, 111, 157, 168, 175
Mississippi..... 145
Ohio 34, 79, 99, 122, 123, 124, 130, 134, 144, 148, 156, 158, 159, 166, 174, 179, 183, 184
Pennsylvania 156
Colva Numes Copper Mines 112
Conejos 119
Confluent Rattlesnake 12
Congo Snake 20
Coniophanes imperialis.....15, 97, 190
Connecticut 114
Connell, Peter 33, 52, 141, 149
Connell, R..... 68
Contia episcopa episcopa..... 14, 87
episcopa isozona..... 14, 87
episcopa torquata.....14, 190
mitis 14, 87
pygæa.....14, 190
Cook County.....83, 144, 147, 160, 161, 175
Cooper, Dr. J. G 38, 41, 47, 49, 65, 70, 80, 86, 89, 107, 110, 117, 119, 122, 126, 127, 128, 138, 159, 160, 163, 165, 166, 167, 169, 170, 171, 172, 177, 178, 180, 181 184
Cooper's Garter Snake..... 18
Green Lizard..... 11
Cooper, Dr. J. H..... 149
"Cooter"..... 5

Page.
Cope's Hyla 24
Lizard 9
Cope, Prof. E. D 56, 110, 177
Cope's Skink 7
Spea 24
Toad 23
Tree Frog 23
Cope & Yarrow 118, 141
Cope, Yarrow & Shedd 68, 118, 122
Copperhead 12
Copper Mines 111
Coppie, Henry 36
Corliss, U. S. A., Captain 48
Corpus Christi 109
Corson, U. S. A., Dr. J. K 38
Cotton-mouth 12
Cottonwood Cañon 73
Cañon, Utah 57, 98
Couch's Garter Snake 17
Couch, U. S. A., Lt. B .. 29, 40, 41, 43, 44, 45, 50, 52, 57, 58, 59, 63, 64, 66, 6 , 75, 89, 90, 91, 100, 101, 104, 106, 109, 111, 112, 113, 115, 116, 118, 120, 123, 124, 125, 131, 135, 141, 142, 143, 162, 164, 165, 168, 179, 180
Couch's Queen Snake 18
Spade Foot 25
Water Snake 19
Coues, U. S. A., Dr. E .. 52, 53, 67, 68, 69, 73, 77, 80, 83, 87, 89, 91, 92, 95, 106, 112, 113, 116, 117, 119, 124, 125, 132, 141, 154, 157, 161, 166, 175
Cowper's Snake 16
Cove Creek 69
Coxsackie 154
Crafts, George 134
Crawford, U. S. A., Dr. S. W 52, 66, 88, 101, 149, 164, 181
Crawford, U. S. A., Lt. E 69, 77, 119
Creek Boundary 102
Crescent City 128
Crested-back Cyclura 11
Crocodilus americanus 5, 27, 187
Crosir, J. G 47
Crotalus adamanteus adamanteus. 12, 75
adamanteus atrox 12, 75, 76
adamanteus scutulatus 12, 76
cerastes 12, 73
confluentus 12, 77
enyo 12, 74
horridus 12, 74
lucifer 12, 76
mitchelli 12, 73, 189
molossus 12, 78
polystictus 12, 77, 190
pyrrhus 12, 73

Page.
Crotalus tigris 12, 74
Crotaphytus collaris 9, 52
copeii 9, 53
reticulatus 9, 54, 189
wislizeni 9, 53
Crowned Horned Lizard 11
Tantilla 13
Cuba 28, 72
Culbertson, T 181
Cumberland County 183
Cumberland Terrapin 6
Curtis, Dr. Josiah 165
Curtis, Rev. M. A 43, 129, 146, 158
Cushing, F. H 80, 85
Cutts, R. D 39, 48, 62, 76, 92, 97, 109, 125, 128, 153, 160
Cuyler, R. R 85
Cyclophis æstivus 16, 100
vernalis 16, 99
Cyclura acanthura 11, 71
hemilopha 11, 71, 189
teres 11, 71

D.

Dagins, J. W 114, 154
Dakota 149
Dallas 110
Dalles 119
Daniel, Maj. M. E 39
Daniel, Mrs. M. E 107, 129, 132, 140, 157
Danvers 167
Darby, Upper 30, 36
Darrell, J. H 156
Davenport 105
Davis 109, 110
Davis, H 166
Davis, S. B 91, 122, 133
Dayton 155
Dayton, E. A 129
Decorated Lizard 10
De Kay's Snake 18
Delaware County, Iowa 79, 139
Ohio 108
Pennsylvania .. 59, 155, 157
Delaware Creek 162
Denig, D. J 179
Department of Agriculture 135, 146
Dermochelys 26
Dermatochelys 26
coriacea 5, 27
Des Chutes River 70, 125
Desert City 68
Desmognathus fusca auriculata ... 22, 160
fusca fusca 22, 159

Page.
Desmognathus ochrophæa 22, 159
nigra.....22, 160
Detroit 99, 123, 144, 148, 154
River 182, 183
Devil's River..... 48
Diadophis arnyi 15, 96
dysopes 15, 190
punctatus amabilis ... .15, 95, 96
punctatus pulchellus 15, 96
punctatus punctatus.... 15, 95
punctatus stictogenys...15, 190
Diadophis regalis..... 15, 97
Diamond-back Terrapin..... 6
Diamond Rattlesnake..... 12
Dickinson, William..... 144
Dicamptodon ensatus 21, 192
Diemyctylus miniatus meridionalis
22, 193
miniatus miniatus ...22, 161
miniatus viridescens .22, 161
torosus 22, 160
Diplodactylus unctus 12, 73
Dipsosaurus dorsalis 9, 54
District of Columbia..30, 36, 37, 60, 89, 135
D'Oca, R. M 69, 81, 93, 115
Dog-nose Snake..... 14
Dome Cañon.....49, 52, 53, 56, 61
Dona Ana 53
Douglass's Horned Lizard..... 11
Dowine, D. C 104
Drexler, C.....49, 78, 107, 120,
129, 149, 150, 151, 153, 154,
163, 166, 179, 182, 185, 186
Dromicus flavilatus.....15, 191
Duffy, P 50, 52, 64, 66, 76, 95, 115, 141
Dugés, Prof. A..... 77
Dumeril & Bibron..... 122
Dunleith 181
Du Quesne 175
Durango 97, 121, 132
Dusky Garter Snake 18
Salamander..... 20

E.

Eagle Lake.....117, 142
Pass 75, 80, 84, 87,
100, 104, 113, 118, 140
Spring 97
Eared Triton..... 22
Earl, R. E..... 44, 71
Eastern Mud Turtle..... 6
Water Lizard 22
Wisconsin..... 99
East Florida 31
Eastport 130, 167
Page.
Edgefield 148
Edgeworth, A. E..... 155
Edwards, U. S. A., Dr. L. A....67, 78, 80,
84, 89, 147, 149, 156
Edwards, V. N..... 125
Eight-lined Lizard..... 8
Eisen, Gustave 53, 87, 88, 92, 94, 96,
107, 112, 113, 142, 152, 160
Eisen's King Snake..... 15
Elaps distans..... 13, 82
euryxanthus 13, 82
fulvius fulvius..... 13, 81
fulvius tener 13, 81
tristis 13, 82
El Dorado County 41, 45, 60,
70, 92, 121, 160
Elegant Bull Snake 16
Uta 10
Elizabethtown 166, 174, 183, 184
Ells Sutton Beach 136
Elmyra 90, 102
El Paso 40, 50, 63
Elyria 184
Emory, U. S. A., Maj. W. H..43, 45, 46, 52,
54, 58, 63, 64, 66, 69, 71, 72,
81, 95, 97, 101, 105, 106, 111,
113, 117, 136, 140, 141, 181
Emory's Garter Snake 17
Snake 16
Soft-shelled Turtle 5
Emys meleagris 7, 37
Encinella 164
Engelmann, Dr. Geo 28, 37, 46, 59, 89,
110, 115, 123, 130, 135, 136, 144,
152, 166, 169, 175, 182, 184, 186
Engystoma carolinense 23, 168
Enterprise 89, 90
Epirhexis longipes.....24, 176
Eretmochelys 26
imbricata..... 5, 187
squamata..... 5, 28
Ervendberg, Prof. L. C 50
Eschscholz's Lizard..... 21
Essex County.....156, 166, 167
Eugene City..... 160
Eumeces anthracinus 7, 188
brevilineatus 7, 188
egregius 7, 187
fasciatus 8, 41, 42
guttulatus..... 8, 41
inornatus..... 8, 188
leptogrammus 8, 40, 188
longirostris 8, 42, 188
multivirgatus..... 8, 40
obsoletus 8, 40

Page.
Eumeces onocrepis 7, 188
pachyurus 7, 188
pluvialis 7, 188
septentrionalis 7, 40
skiltonianus 8, 41
tetragrammus 7, 188
Eustis, U. S. A., Lieutenant 39, 46, 83
Eutænia atrata 18, 128
cooperi 18, 128
cyrtopsis 17, 121
cyrtopsis ocellatus ... 17, 121, 191
elegans 17, 121
faireyi 17, 115
hammondi 17, 117
macrostemma megalops .. 17, 117
marciana 17, 118
ornata 17, 122
phenax 18, 128
proxima 17, 115, 116
radix 17, 116
radix twiningi 17, 117
sackeni 17, 114
saurita 17, 114
scalaris 18, 128
sirtalis dorsalis 18, 124
sirtalis obscura 18, 126, 127
sirtalis ordinata 18, 125
sirtalis parietalis 18, 125, 126
sirtalis pickeringi 18, 127
sirtalis sirtalis ... 17, 122, 123, 124
sirtalis tetratænia ... 18, 128, 191
sumichrasti 18, 129
vagrans angustirostris .. 17, 120, 191
vagrans vagrans 17, 119, 120
Eutaw .. 41, 43, 59, 71, 81, 122, 124, 125, 138, 140, 157, 159, 166, 174, 182, 183
Evans, Dr 123, 165, 179
Evans, John 59
Evans's King Snake 15
Evansville 146
Exploring Expedition Cent. Pac.. 171
Exploring Exped. U. S 47, 62, 87, 105, 110, 120, 152, 160, 186
Expl. Expd. west of 100° M 49, 56, 57, 58, 61, 63, 66, 91, 119, 121, 165

F.

Fairfax County 123
Fairfield 37, 61, 65, 165
Fairplay 170
Fairie, James 46, 74, 79, 80, 85, 88, 108, 136, 137, 145, 146, 147, 152, 182
Fairie's Garter Snake 17
Farallone Islands 158

Page.
Farancia abacura 13, 85
Feather River 47
Feilner, John 107, 172
Femoral Hyla 24
Ferry Landing 32, 37, 80, 102, 130, 133, 135, 183
Fire Hole Basin, Upper 68
Fish Commission, U. S. 65, 123, 154, 167, 185
Fitzgerald 75, 83, 94, 122, 136
Flat-footed Salamander 21
Flat-headed Tantilla 13
Flat-tailed Water Snake 19
Florida 27, 35, 37, 38, 39, 46, 72, 75, 80, 103, 104, 111, 123, 147, 168
Alligator Lizard 10
Cooter 6
East 31
Frog 25
Gecko 11
Harlequin Snake 13
Hyla 24
Manculus 22
Miter Snake 14
Southern 41
Skink 7
Water Snake 19
Fond du Lac 183
Forschey, Professor 118
Fort Benton 69, 106, 116, 119, 125, 126, 149, 157
Benton and Fort Union, between 181
Bliss .. 52, 66, 88, 100, 101, 149, 164, 181
Bridger 49, 69, 120, 149, 180, 181
Bridger, west of 120
Buchanan 43, 49, 51, 65, 69, 73, 74, 75, 76, 88, 97, 98, 113, 180
Chadbourne 67, 87, 131
Cobb 93, 114
Cobb, Old 29, 32, 46, 53, 65
Conrad 105, 108
Craig 63, 98
Crook 106, 107, 126, 172
Dallas 61, 96, 106, 109, 125, 171, 172
Davis 88, 97, 104, 123
Dawson 147
Defiance 166
Fillmore 57, 93, 106
Garland 118, 164, 165, 170
George 88
Inge 168, 169, 180
Jackson 84
Jessup 59, 108, 145
Kearney 37, 40, 49, 77, 106, 107, 108, 126, 127, 133, 165, 181

Page.
Fort Kearney, 240 miles from..... 181
Klamath 121, 151
Laramie 29, 40, 68, 119, 125, 126, 127, 149, 166
Laramie, 100 miles east of 181
Lyon 141
Macon.....27, 44, 46, 100, 110, 140
Mason 66
McDowell 48
McKavett 52, 101, 114
Morgan 46, 103
Pierre.....123, 165, 170, 179, 181
Reading.....48, 92, 121, 127
Resolution.....170, 186
Reynolds.....40, 149
Riley.....33, 40, 52, 59, 66, 67, 68, 80, 85, 89, 93, 101, 102, 106, 107, 108, 116, 122, 134, 138, 141, 149, 165, 167, 169
Riley, 105 miles west of..... 169
Ripley 40, 99, 116, 139, 148, 179
Scott..... 39, 83
Smith 28, 42, 43, 46, 52, 63, 79, 100, 101, 108, 134, 135, 166, 169, 179, 184
Snelling.....35, 101, 105, 116, 125, 138
Steilacoom.....36, 61, 68, 105, 109, 119, 120, 128, 142, 160
Simpson..... 185
Stockton.....50, 52, 64, 66, 76, 78, 95, 115, 141
Tejon.....35, 42, 45, 47, 49, 53, 56, 60, 70, 73, 76, 88, 92, 105, 109, 110, 113, 117, 149, 154, 162, 172, 185
Tejon, mountains near..... 171
Townsend 59
Towson 59, 67, 84, 89, 93, 110
Umpqua.....60, 76, 122, 163, 171
Union 33, 52, 68, 77, 89, 116, 141, 149, 170, 179, 180
Vancouver.....127, 160, 171
Walla Walla.....35, 65, 70, 76, 106, 107, 117, 119, 125, 126, 172
Wayne 109, 124
Whipple.....52, 53, 65, 68, 69, 73, 82, 87, 88, 91, 92, 97, 98, 106, 112, 113, 119, 120, 140
Wingate.....61, 75, 77, 105
Yuma 31, 38, 51, 54, 56, 71, 72, 75, 92, 112, 118
Four-fingered Manculus..... 22
Four-lined Snake 16
Four-mile Run..... 134
Fowler's Toad..... 23
Foxburg.....83, 122, 123, 124, 132, 157, 158, 166, 184
Fox, Rev. C.....101, 126, 136

Page.
Fox River 29, 115
Snake 16
Framingham .34, 130, 134, 135, 166, 179, 182
Franklin County, Tennessee...41, 135, 157
French Creek..... 120
Frenchman's River..... 117
Fresno.....53, 85, 87, 88, 92, 94, 96, 107, 112, 113, 142, 152, 160
Fresno King Snake..... 15

G.

Gabb's Dragon..... 9
Gainesville 27, 28, 75, 79, 81, 85, 89, 92, 100, 102, 104, 105, 109, 110, 111, 114, 115, 123, 124, 133, 134, 135, 136, 137, 138
Galveston.....71, 89, 90, 95, 100, 170
Gambel, Dr. W ..50, 53, 62, 64, 112, 119, 141
Garden Key 28
Garrison Creek 182
Garter Snake 17
Geneva Lake 144
Geographical Terrapin..... 6
Georgetown, D. C....110, 124, 134, 136, 164
South Carolina...85, 97, 102, 111, 132, 143
Georgia.....46, 83, 85, 94, 129, 132, 143, 144, 146, 155, 160, 161, 162, 168, 169, 171, 173, 183
Georgiana 30, 44, 46, 60, 72, 81, 90, 95, 100, 102, 103, 109, 134, 136, 173
Georgia Snake..... 16
Gephart, A 147
Gerrhonotus grandis..... 9, 47
infernalis 9, 48, 188
multicarinatus 9, 47
nobilis..... 8, 47
principis 9, 47, 188
scincicaudus 9, 48
Gesner, Dr 168, 175
Gibbes, Dr. L. R 145
Gibbes' Proteus 20
Gila and Colorado 75, 111
Monster 9
River 42, 56, 85, 106
Bottom 76
Lizard 8
Gilbert, Dr..... 147
Gilmer 43, 84
Girard, Dr. C 30, 31, 125, 130, 164, 168, 169, 179
Girard's Toad 23
Glasco, J. N..... 84
Glass Snake 8
Gloucester County..... 100

Page.
Gloucester, Massachusetts..... 123
Virginia...41, 91, 124, 129, 147
Glover, T.....29, 30, 31, 109, 147
Goat Creek..... 184
Gold Mountains 119
Goldsboro'.....135, 138, 157, 167, 169, 175
Goode, F. C.....27, 81, 85, 100, 102, 138
Goode, G. Brown.....27, 32, 35, 38, 42, 44, 46, 78, 88, 89, 100, 102, 103, 105, 109, 110, 111, 123, 134, 139, 145, 164, 168, 169, 170, 174, 184
Gopher..... 7
Goss, B. F 40, 134
Gould, B. Y..... 33
Graceful Tantilla..... 13
Uta 9
Graham, U. S. A., Col. J. D.....10, 49, 50, 56, 58, 60, 63, 64, 75, 77, 78, 80, 87, 93, 97, 98, 101, 108, 113, 115, 118, 125, 131, 135, 141, 142, 147
Graham's Arizona Snake 15
Queen Snake..... 18
Snake 15
Striped Lizard 8
Grahamville.....155, 173
Grand Coteau.....39, 42, 71, 78, 80, 84, 100, 103, 108, 110, 115, 130, 133, 137, 143, 147, 173, 175, 179
Detour 169, 179
Ecorse 144
River, South 170
Grass River, Madrid 144
Snake 18
Great Lakes.....144, 146
Striped Lizard..... 8
Green Lizard 11
Green-brown Lizard 9
Green Plains..... 174
Snake..... 16
Queen Snake..... 18
Triton 22
Green's Triton..... 22
Gressner, D..... 111
Gross, U. S. A., Lieutenant 170
Grosse Isle 101, 108, 109, 123, 126, 174
Ground Snake..... 13
Worm..... 7
Gruber, F 36
Guadalupe Cañon..... 31
Gulf Hammock 75
Gunn, D..... 176
Gunnison, U. S. A., Captain 144
Gyalopium canum 14, 88
Gyrinophilus porphyriticus 22, 158

H.

Page.
Haldea striatula..... 13, 84
Halifax.....125, 147
Hallowell's Coach-whip Snake 17
Skink..... 8
Tantilla..... 13
Hamilton County..... 157
Hammond's Garter Snake..... 17
Spea..... 24
Hammond, U. S. A., Dr. J. F...169, 199, 183
Hammond, U. S. A., Dr. W. A... 40, 48, 53, 59, 61, 77, 89, 103, 109, 114, 117, 121, 123, 126, 127, 130, 139, 140, 141, 149, 163, 164, 165, 167, 169, 173, 174, 181
Hampshire County..... 110
Harlequin Snake..... 13
Hasson, J. A.....44, 53, 56
Harberfield, John M..... 84
Havre de Grace.....30, 91, 126, 167
Hayden, Dr. F. V.....29, 35, 40, 68, 77, 108, 123, 134, 141, 157, 162, 166, 169, 173, 179, 180, 181, 184
Hayden's Skink..... 8
Haymond, Dr. R. 132, 140, 153, 154, 179, 184
Hayward, F. W.. ..30, 33, 143, 160, 180, 184
Hays, Dr..... 153
Head, U. S. A., Dr. J. F.....148, 179
Heerman, Dr. A. L.....41, 51, 54, 78, 88, 172, 176
Helen's Snake..... 13
Helicops alleni.....19, 191
Hellbender..... 20
Heloderma suspectum..... 9, 48
Helotes..... 121
Hemidactylum scutatum.....21, 153
Hemphill, K..... 41
Hemstead..... 82
Henderson, Dr..... 161
Henry's Mud Turtle..... 6
Hernandez's Horned Lizard..... 11
Henshaw, H. W.....31, 45, 48, 49, 51, 52, 53, 56, 57, 60, 61, 63, 64, 65, 66, 68, 69, 70, 75, 76, 77, 78, 88, 90, 96, 98, 106, 107, 108, 109, 112, 113, 117, 118, 121, 122, 125, 126, 127, 128, 141, 142, 162, 163, 165, 170, 171, 172, 175, 181, 183, 185, 186
Hessel, Dr. R..... 134
Heterodon platyrhinus atmodes.. .19, 139
platyrhinus niger.....19, 140
platyrhinus platyrhinus.....19, 138, 139
simus kennerlyi.....19, 141
simus nasicus.....19, 140, 141
simus simus.....19, 140

Page.
Highland County....130, 132, 159, 166, 183
Highlands, south of.....154, 166, 185
Hildreth..... 152
Hillsboro'.....146, 158
Hirst, F..... 149
Hitchcock, George N..... 36, 38
Hog-nose snake..... 19
Hoffman, Dr. W. J..... 38
Holbrookia lacerata..... 9, 188
maculata approximans. 9, 188
maculata maculata.... 9, 49
maculata propinqua... 9, 50
texana..... 9, 50
Holbrook's Lizard..... 9
Spade Foot..... 25
Terrapin..... 6
Triton..... 22
Water Snake..... 19
Holden, Capt. W. 41, 81, 85, 88, 139, 155, 160
Homosassa..... 38, 92
Honey Lake.....106, 107, 109
Hoop Snake..... 13
Horan, Henry..... 135
Horn, J. H..... 86
Horn Snake..... 13
Horned Lizard..... 11
Rattlesnake..... 12
Horse Snake..... 13
Hough, Dr. F. B..... 91
House Snake..... 14
Howard, J. W..... 27
Howard Springs..... 113
Howell, E. E.....125, 161
Hoy, Dr. P. R.....79, 102, 108, 116, 123, 124, 129, 130, 134, 150, 166, 174, 175, 179, 182, 183, 185, 186
Hudson's Bay, near Lake Abitil... 150
Hudson's Bay Territory..... 153
Hughes.....89, 91, 95, 109, 129, 130, 131
Huma Bay..... 106
Humboldt Bay.....119, 122
Humboldt River.....65, 119, 142
River, Southern Fork... 105
Hunter, Dr..... 94
Hyattsville..... 91
Hyette..... 96
Hyla andersoni.....24, 172, 193
arenicolor.....24, 175
cadaverina.....24, 176, 193
carolinensis.....24, 173
carolinensis semifasciata 24, 173
curta.....24, 171, 193
eximia.....24, 172
femoralis.....24, 174
gratiosa.....24, 176
Page.
Hyla pickeringi.....24, 174
regilla.....24, 171, 172
squirella.....24, 173
versicolor.....24, 174, 175
Hypsiglena ochrorhyncha..... 15, 97
ochrorhyncha chlorophæa.....15, 97, 190

I.

Illinois.....29, 35, 37, 83, 114, 115, 161, 185
Southern ...41, 82, 89, 93, 94, 95, 96, 100, 102, 103, 105, 108, 110, 129, 130, 134, 136, 137, 138, 147, 150, 155, 166, 169, 175, 179, 180, 183
Ingersoll, E..... 149
Imperial Snake..... 15
Independence 89, 102, 103, 126, 138, 148
Indiana..... 79
County..... 114
Indian River.....34, 41, 43, 91, 103, 123, 164, 178
Indianola.....50, 60, 63, 67, 75, 80, 81, 84, 87, 93, 98, 100, 111, 118, 131, 135, 164, 169, 178
and El Paso, between.... 147
and San Antonio, between 111
Iowa.....74, 99, 167, 179
Irwin's Snake..... 15
Irwin, U. S. A., Dr. B. J. D.....66, 69, 73, 74, 75, 76, 80, 88, 97, 98, 113
Isle Royal, Lake Superior..... 144
Ives, U. S. A., Lt. J. C.....56, 57, 64, 66, 68, 69, 89

J.

Jackson.....75, 94, 122, 136
County.....83, 166
Jackson, E. E.....42, 143
Jacksonville..... 27
Jamaica..... 28
James Bay.....163, 179, 185, 186
James River, Upper..... 158
Jarvis, U. S. A., Dr.....78, 89, 95, 138
Jaynes, Dr. L. N..... 91
Jeffers..... 78
Jefferson's Salamander..... 20
Jeffrey, R. W., Dr.....35, 43, 62, 71, 72, 85, 111, 173
Jersey City..... 161
Jewell, Colonel..... 81
Jew's-harp Snake..... 15
Johnson, C. E..... 65
Johnson, S. M..... 109
Jones, W. L., Dr.....46, 49, 81, 85, 104, 110, 124, 132, 133, 136, 143, 144, 145, 146, 147, 155, 157, 160, 161, 164, 168

Page.
Jordan, Prof. D. S..48, 70, 100, 106, 121, 133
Jordan & Gilbert..... 149
Jouy, P. L.....31, 36, 41, 165

K.

Kalamazoo 131
Kansas 30, 37, 46, 67, 68, 69, 74, 101. 102, 108, 124, 126, 127, 129, 130, 149, 165, 169
Karawapin Valley..... 121
Katonah..... 74
K. C. A..... 149
Kearney, U. S. A., Colonel...74, 75, 81, 89
Keeled Green Snake..... 16
Keenan, T. J. H 75
Keenan, Miss T. J. R..... 124
Kellogg, F.....115, 140
Kemper County.....59, 71, 82, 84, 89, 93, 100, 103, 122, 139, 174
Creek..... 140
Kennebago 183
Kennerly, Dr. C. B. R.....29, 30, 31, 37, 40, 43, 44, 47, 48, 50, 52, 55, 58, 67, 76, 77, 90, 93, 115, 120, 123, 127, 128, 131, 138, 142, 144, 151, 152, 154, 155, 159, 163, 168, 169, 171, 172, 180, 181, 182, 183, 185
Kennerly's Hog-nose Snake..... 19
Kennicott, R.....28, 30, 35, 41, 60, 89, 99, 100, 101, 102, 114, 122, 123, 131, 132, 135, 137, 138, 144, 147, 148, 152, 154, 155, 157, 160, 161, 163, 166, 167, 169, 170, 174, 175, 178, 179, 180, 181, 182, 183, 185, 186
Kennicott's King Snake..... 14
Kennicott's Rattlesnake 12
Kent County 83
Kern County 39
Kern, R. H 58, 149
Kern River 77
Kernville 106, 110
King Snake 14
Kinston ..32, 39, 41, 43, 60, 72, 83, 85, 90, 91, 100, 102, 103, 123, 129, 130, 132, 134, 136, 139, 144, 147, 161, 166, 167, 168, 173, 182
Kirtland, Dr. J. P 79, 96, 144, 147
Kirtland's Snake..... 18
Kite, U. S. N., Dr. J. A..... 83
Klamath Lake.....109, 110, 182
Knoxville 41, 60, 132
Kohler, John 73, 98
Kohn, G.....32, 33, 136, 156
Kumlein, A. L.....30, 71, 92, 135, 161
Kumlein & Bean....43, 79, 82, 134, 166, 173

L.

Lac qui parle.....126, 149
La Fayette..... 137
Page.
Lajura 53, 112
Lake Huron 136
Michigan..... 144
Monroe.....71, 164
Siren..... 20
Superior...122, 123, 144, 154, 179, 185
Superior, Fort William 154
Tahoe.....60, 121, 122, 125, 162, 163, 172, 186
Winniebigoshish 186
Winnipeg 115
La Mesila 66
Lancaster County, Pennsylvania... 184
Massachusetts..... 114
Ohio 147, 157
Land Turtle..... 7
Lansing 136
La Paz 33, 38, 42, 45, 47, 50, 51, 53, 54, 55, 56, 57, 61, 63, 64, 66, 67, 68, 71, 73, 74, 75, 86, 92, 97, 98, 99, 107, 112, 133, 142, 162, 163, 171, 172
Lapham..... 99
Laramie River..... 180
Laredo 43, 45, 50, 54, 58, 63, 67
and Camargo, between..... 168
Lateral Salamander..... 21
Latreille's Toad..... 23
Laurel 92, 138
Latitude 32°, near.....42, 52, 53, 64, 77, 80, 101, 118
38° 125
38°, near 41, 44, 52, 53, 61, 62, 65, 69, 105, 119, 120, 136
Lead-colored Worm Snake 19
Leather-back Turtle 5
Lebanon.....91, 122, 130
Springs 90, 99
Le Conte's Mud Turtle..... 6
Snake 14
Le Conte, Dr. J. L.....45, 87, 95, 142, 149, 160, 162, 169, 170, 172
Le Conte, Maj. J.....47, 59, 162, 164, 168, 170, 171, 173, 174, 175, 176, 178, 183
Leesburg..... 80
Leonard, H. A..... 179
Leon River..... 180
Lesquereux, Prof. L.....130, 144, 147, 148, 152, 157, 158, 159, 166, 174, 179, 183, 184
Le Sueur's Terrapin..... 6
Lexington..... 161
Liberty County 45, 59, 81, 85, 104, 110, 111, 124, 133, 140, 146, 164, 170, 173, 174, 175, 178, 179
Lichanura myriolepis.....19, 191
roseifusca..... 19, 191

Page.
Lichanura trivirgata 19
Lightburne, Dr. R. E 53, 65, 92, 112
Limpia Mountains 58
Lindheimer, Dr. F 101, 110, 111, 135, 169, 173, 174
Lindheimer's Snake 16
Lineback, J. T 108, 158, 159, 166, 169, 175, 180, 183
Lineback and School 124
Lined Snake 18
Lithodytes latrans 24, 176
ricordi 24, 193
Little Blue River 127, 165, 166
Horned Lizard 11
Sarasota Bay 42, 44, 71, 114, 164, 168, 173
Live Oak Creek 72
Oaks 181
Livingston County 132
Llano Estacado 64, 87, 88, 106
Lloyd, D. C ... 93, 103, 122, 139, 140, 164, 174
Lloyd, R. V 114
Lodia tenuis 14, 87, 190
Loew, Dr. O 43, 52, 56, 57, 61, 62, 63, 64, 68, 70, 96, 99, 106, 111, 113, 117, 118, 119, 120, 122, 141, 164, 175, 180
Loggerhead 5
Longfield, Frank 106
Long-footed Frog 24
Long Lake 108, 162
Long-nosed Garter Snake 17
Long-tailed Triton 22
Long's Garter Snake 17
Loud, S. H 148
Louisiana 71, 72, 89, 173
Black Snake 16
Louisville 154
Los Angeles 43, 44, 60, 64, 118, 171
Carnados 75
Nogales 52, 55, 58, 66
Loup Fork 169
Lower California 57
Platte 149
Rio Grande 38, 104, 106, 108, 141
Lucknow 150

M.

Macrochelys 26
lacertina 5, 30
Macroclemys 26
Macroclemmys 26
Madison, Indiana 28, 29
Virginia 80, 103, 124, 129, 130
Wisconsin 35, 183
Madras 34
Madrid 129, 182
Magdalena, Straits of 95
Malachite Alligator Lizard 10
Malaclemys 26
Malaclemmys 26
Malacoclemmys 26
geographicus 6, 33
le sueuri 6, 26, 34
palustris 6, 34
Mammoth Cave, near 129
Manatee 39
Manculus remifer 22, 192
quadridigitatus 22, 156, 192
Mandeville 32, 33, 136, 152, 155, 156, 159
Manitoba 144
Mann, Rev. C 91, 47
Manteufel, U. S. A. Hosp. stew., W. F. von 88, 97, 104, 123
Many-keeled Lizard 9
Many-ribbed Spea 24
Triton 22
Many-scaled Boa 19
Marbled Lizard 10
Salamander 20
Marcy, U. S. A., Capt. R. D 49, 52, 90, 93, 111, 115, 118, 140, 165, 184
Marcy's Alligator Lizard 10
Garter Snake 17
Margined Painted Turtle 6
Triton 22
Marietta, Georgia ... 59, 91, 95, 110, 132, 134
Ohio 33, 95, 110, 138, 166, 173, 184
Manigault, Dr. G. E 32, 75
Marion County 34
Marnock, G. W 121, 176
Marnock's Frog 24
Marshall, George 138
Marshall, Henry 138
Marshall, Miss 91
Martha's Vineyard 125
Martin, C. C 159, 166
Maryland 92, 166, 174
Mason 83
Mason County 169
Massasauga 12
Matamoras 29, 33, 40, 43, 63, 66, 67, 91, 97, 98, 100, 104, 109, 113, 115, 118, 123, 124, 130, 141, 143, 162, 168
Mather, Fred 34, 43, 59, 161, 175, 183
McCall's Horned Lizard 11
McClean, F P 102
McClellan, U S. A., Capt. G. B 106
McCloud River 92
McDonald, M 110, 180

Page.
McNair, J. C.....81, 84, 103, 114, 122, 129, 139, 175
McRae, Donald..... 145
Meadville.....124, 144, 146, 155, 156, 157, 158, 161, 166, 174, 182, 183, 184
Medicine Bow 119
Creek..... 163
Cow Creek..... 181
River..... 126
Medina.....62, 115
River..... 30
Meek, Prof. F. B.....37, 42, 44, 71, 82, 103, 114, 164, 168, 173
Memphis 59, 175
Menopoma allegheniense.....20, 146
fuscum.....20, 146
Merriam, C. Hart 68
Merino Valley 99
Merrill, U. S. A., Dr. J. C 29, 32, 33
Mexican Bound. Surv 40, 69
Mexico....46, 62, 77, 78, 90, 99, 106, 117, 149
Valley of 181
Mexican Ground Rattlesnake..... 12
Horned Lizard..... 11
King Snake 14
Lizard..... 9
Spotted Lizard..... 9
Striped Lizard..... 8
Micanopy.....38, 39, 43, 46, 59, 71, 81, 102, 103, 109, 134, 137, 138, 156, 165, 174, 176, 178, 184
Middle Sound..... 71
Middletown 44, 95, 114, 123
Middle Utah..... 112
Milk River 77, 117, 125, 126, 127, 140
Snake..... 14
Milledgeville ...29, 43, 59, 134, 166, 173, 178
Milner, J. W 28, 32, 33, 34, 38, 39, 60, 80, 91, 92, 100, 102, 103, 116, 123, 126, 129, 130, 132, 134, 135, 136, 139, 144, 147, 161, 167, 169, 173, 175, 182
Miller.....60, 72, 90, 104
Milwaukee 84
Mineral Spring 119
Minnesota.....95, 166
Minos, U. S. A., Captain..... 47
Mississippi.....37, 41, 46, 72, 80, 83, 85, 89, 90, 91, 99, 108, 115, 130, 134, 135, 138, 148, 159, 164, 166, 173, 178
Mississippi River..... 167
and Yellowstone, Upper..... 179
Valley, Upper 161
Missouri 41, 166, 180, 183
River 126, 127
Missouri, Upper 119, 138, 141
Western.....100, 102, 108, 124, 166, 184, 186
Mitchell, Prof. J. B..... 132
Mitchell, Prof. J. H.....41, 43, 60, 175
Mitchell's Rattlesnake 12
Miter Snake..... 14
Mobile 59, 169, 184
"Mobilianer"..... 6
Mobile Terrapin 6
Moccasin 12
Mohave Desert.....51, 52, 56, 57, 60, 61, 63, 65, 70, 73, 76, 106, 111, 117118
Snake 13
Ringed Snake 14
Village 98
Mollhausen, H. B.....31, 45, 51, 53, 54, 67, 68, 94, 98, 112, 116, 119, 124, 162, 163, 166, 167, 169, 180, 181, 184
Monroe 99, 123, 130
County 99
Montana 77, 119, 141
Monterey.....36, 39, 43, 47, 50, 66, 67, 70, 106, 107, 121, 142, 153, 155, 158, 162, 172
Montezuma's Frog..... 25
Montgomery.....33, 42, 43, 59, 79, 134
County..... 91
Monticello 30, 78, 88, 93, 103, 130, 135, 166, 184
Moore, N. B..... 39
Moose Island..... 186
River 151, 182, 185, 186
Moran, Dr. G. A..... 81, 88
Moran, Dr. G. N..... 157
Morgan 110
Morgantown..... 157
Morris, Rev. J. S 132
Morocco..... 28
Morton..... 83
Moulton.....95, 147, 155, 161
Mount Auburn..... 130
Mount Carmel ..28, 29, 30, 33, 34, 35, 37, 39, 42, 46, 82, 83, 84, 89, 93, 94, 100, 102, 103, 115, 116, 123, 124, 126, 129, 130, 136, 137, 138, 139, 140, 143, 144, 147, 152, 159, 161
Mount Holly.....59, 105, 166, 174, 175, 183
Joy 90, 150, 153
Trumbull..... 48
Whitney.....60, 171
Mountain Black Snake..... 16
Triton 22
Mouse River.....116, 117, 129
Mud Eel..... 20
Turtle..... 6
Muhlenberg's Turtle..... 7

Page.
Mullen, U. S. A., Lieut. J.....39, 127, 172
Muræ nopsis tridactylus.....20, 145
Mus. d'hist. nat. Paris 86, 90
Museum, Wesleyan University.95, 114, 123
Musk Turtle..... 5, 6

N.

Nashville.....30, 32, 39, 41, 60, 71, 78, 81, 84, 92, 100, 109, 123, 135, 138, 159
Natchez, Miss 93, 136, 155, 175
National Museum, Mexico..... 149
Neah Bay 151
Nebraska 49, 61, 68, 69, 79, 105, 110, 116, 120, 122, 126, 127, 134, 139, 141, 149, 165, 167, 179, 181
Nebulous Toad..... 23
Necturus lateralis.....20, 144
punctatus 20, 145, 192
Neosho Falls.....40, 94, 99, 100, 115, 122, 131, 134
Valley..... 33
Neuse River..... 143
Neuwied 50
Nevada.....56, 62, 63, 65, 186
New Berne ...41, 46, 79, 85, 91, 102, 133, 139
Newberry. Dr. J. G.....60, 70, 150
Newberry, Dr. C. G....42, 47, 49, 52, 56, 57, 58, 63, 68, 77, 92, 105, 112, 119, 149, 165
New Braunfels.....24, 43, 67, 101, 110, 111, 135, 155, 169, 173, 174
New Buffalo.....79, 124
New Casswell..... 100
New Harmony..... 134
New Jersey..... 100
New Leon, Caderita..... 116
Pesquiera Grande..... 164
New Madrid.....60, 152, 169
New Mexican Alligator Lizard 10
Salamander 20
Spea..... 25
New Mexico 43, 49, 64, 68, 106, 111, 118, 120, 122, 141, 149, 150, 162, 164, 165
New Orleans.....39, 43, 72, 79, 81, 88, 89, 93, 108, 114, 126, 130, 131, 133, 134, 136, 166, 167, 175, 180, 184
Academy.....39, 43, 81, 93, 155, 159, 166, 175
Newport, Rhode Island 95
New York 27, 28, 34, 90, 91, 95, 103, 130, 136, 147, 148, 150, 154, 155, 161
Nicaragua..... 59
Nicasio..... 36
Nolichucky River..... 146
Norfolk.....36, 41, 43, 59, 134, 147, 154, 155, 161, 167

Page.
North Carolina 41, 42, 71, 155
Creek 120
Northampton County..... 103
Northern Alabama.....41, 59, 134
Boundary of Texas..... 40, 67
Illinois 129, 131, 135
Texas..... .....59, 177
Utah 69
Northeast Wisconsin..... 134
Northfield 123
West ..39, 131, 148, 154, 155, 170
North Platte.....119, 169
Northville, Mich..... 30
Northwestern Boundary Survey .47, 48, 67
Northwest University..... 90
Nueva Leon, San Diego 135
Santa Caterina.40, 112, 135, 168
Nutrias.....112, 149, 172

O.

Oak Frog..... 23
Oakland 41, 142
Oakley..30, 33, 72, 91, 143, 145, 160, 180, 184
Oak Orchard..... 106
Ocate 126
River 127
Ocellated Garter Snake 17
Oconomowoc River 169
Odell, E. F.....74, 79, 99, 108, 139, 186
Ogden 98, 109, 110
Ogdensburg 185
Ohio 88, 150
Ojo Caliente..... 58
Olamchu Peak..... 56, 61
Oligosoma laterale 7, 39
Oneida County 166
Ophibolus californiæ 15, 190
calligaster 15, 94
doliatus amaurus.....14, 190
doliatus annulatus..... 14, 90
doliatus coccineus..... 14, 90
doliatus doliatus..... 14, 89
doliatus gentilis..... 14, 90
doliatus triangulus...14, 90, 91
getulus boyli..... 14, 92
getulus eiseni 15, 94
getulus getulus 14, 91, 92
getulus multicinctus ... 15, 94
getulus niger 15, 93
getulus sayi..... 15, 93
getulus splendidus 14, 93
multistratus 14, 190
pyrrhomelas 14, 91
rhombomaculatus..... 15, 94
Opheosaurus ventralis 8, 46

Page.
Orange 159
Oregon 47, 48, 61, 62, 70, 76, 77, 87, 113, 121, 125, 152
Southern 126
Western 127, 128
Lizard 9
Salamander 21
Triton 21
Worm Snake 14
Orizaba 116, 128, 130
Garter Snake 18
Ornate Garter Snake 17
Horned Lizard 11
Terrapin 6
Uta 10
Tree Frog 24
Osceola elapsoidea 14, 89
Osceola's Snake 14
Osten-Sacken's Garter Snake 17
Owassee 99, 132
Owen, Dr 130
Owen, Prof. R 110, 138, 144, 146, 155, 158, 184

P.

Pacific Coach-whip Snake 17
Frog 25
Green Turtle 5
Hawk's-bill Turtle 5
Hyla 24
Lizard 21
Railroad Survey 33, 47, 54, 63, 76, 110, 120, 128, 181
Railroad Survey, Southern. 67
Water Lizard 22
Pagosa 68, 105, 106, 107, 119, 170
Paine, Jas 115
Paine, Miss C 85, 94, 95, 103, 110, 174, 183, 185
Painted Box Tortoise 7
Toad 23
Turtle 6
Palatka .29, 30, 31, 32, 102, 103, 109, 114, 133
Palmer, Captain 139
Palmer, Dr. E...29, 32, 46, 53, 65, 69, 77, 82, 91, 96, 97, 108, 110, 111, 117, 119, 140, 149
Palmer, J 60
Palmer, J. D.....27, 166
Palmer, Wm 31, 83, 89, 132, 138
Para Coahula 120
Paris Museum 86, 88
Pass Creek 181
Christian 85, 173
Patos Coahuila 57
Pearl River 96, 167, 175, 178, 182
Page.
Pecos River 40, 43, 45, 49, 50, 53, 56, 63, 64, 66, 68, 77, 78, 81, 88, 93, 95, 98, 101, 108, 115, 116, 135, 137, 140, 141
Peichardière. de la O 130
Pembina 116
Pennsylvania 37, 146
Western 150, 156
Pensacola 27, 32, 35, 43, 46, 62, 71, 72, 78, 85, 88, 89, 100, 103, 109, 111, 114, 130, 140, 164, 167, 169, 173, 179, 183, 184
Pescao 61
Pesquiera Grande 52, 58, 64, 111
Petaluma 47, 60, 87, 95, 107, 112, 150, 153, 158, 182
Peterson 149
Philadelphia 36, 166, 182
West 175, 182
Phillips, Wm 42, 129, 134, 135, 157
Phimothyra decurtata 15, 99, 191
grahami 15, 98
grahami hexalepis 15, 191
Phrynosoma asio 11, 67, 189
blainvillei 11, 70
cornutum 11, 66, 67
coronatum 11, 70
douglassi douglassi .11, 68, 69
douglassi ornatissimum 11, 69
douglassi pygmæa 11, 70
hernandezi 11, 68
maccalli 11, 65
modestum 11, 64
platyrhinum 11, 65
regale 11, 66
Phyllodactylus tuberculosus 11, 189
xanti 12, 73, 189
Pickering's Garter Snake 18
Hyla 24
Pigmy Horned Lizard 11
Pilichody 59, 169
Pillsbury, J. H 134
Pine Snake 16
Piney Point 44
Pitt River 107, 128
Cañon 119
Valley 109
Pittsburgh 95, 129, 130, 159
Pityophis elegans 16, 108
melanoleucus 16, 105
sayi bellona 16, 106, 107
sayi sayi 16, 105
vertebralis 16, 107, 191
Plaenis 64
Platte River 108, 112, 116, 124
Nebraska 40, 49, 110, 120, 126, 127, 141, 167, 180, 181

Page.
Platte River Sandhills..... 40
South 12f, 141, 166, 167
Valley.....49, 106, 107, 149, 167, 181
Plaza de l'Alcalde.....43, 49, 166, 180
Plethodon cinereus cinereus.....21, 153
cinereus dorsalis .. 21, 154, 192
cinereus erythronotus ..21, 154
croceater 21, 192
flavipunctatus 21, 192
glutinosus 21, 155
intermedius.....21, 154, 192
oregonensis.....21, 155, 192
Pluvial Skink 7
Plymouth Rock..... 99
Poinsett's Lizard 10
Point Isabella 118, 164
Pointsville 60, 157
Poland 146
County 35, 134
Pole Creek 69, 77, 123, 141, 165, 181
Pass 108
Polner, Wm 124
Pond Turtle 6
Pope, U. S. A., Capt. John 29, 33, 40, 43, 50, 56, 61, 64, 66, 68, 76, 77, 78, 80, 84, 87, 88, 94, 95, 101, 104, 115, 118, 135, 137, 140, 164, 181
Poplar River 106
Porphyry Salamander..... 21
Port Huron.....122, 124, 179, 183
Tobacco 91
Portage County 183
Lake..... 144
Portland 99, 129
Postell, J. P.....90, 108, 124, 178
Potomac River 153, 154, 175
"Potter" 6
Potts, John.52, 64, 67, 127, 133, 148, 150, 177
Pourtalés, A..... 90
Powder River, above 109
Powell, Samuel..... 95
Prairie Mer Rouge 29, 33, 35, 74, 79, 80, 83, 85, 88, 89, 108, 110, 115, 133, 136, 137, 143, 145, 146, 147, 152, 166, 169, 173, 174, 179, 182, 183, 184
Prairie Rattlesnake..... 12
Presidio.....47, 60, 109, 142, 162, 185
del Norte.....98, 106
Preston County.....124, 179
Prince George's County 43, 59, 60, 100, 170, 174, 185
Prindle, Edwin 153, 154
Proteus 20
Provo.....77, 110, 112, 120, 163, 177, 179
Pseudemys concinna 6, 32
Pseudemys elegans..... 6, 33
hieroglyphica 6, 187
mobilensis.....6, 32, 187
ornata.....6, 33, 187
rugosa 6, 32
scabra 6, 32
troosti 6, 32, 187
Pseudobranchus striatus 20, 144
Pueblo 108, 112, 118
Puget's Sound 36, 47, 87, 105, 110, 125, 127, 128, 142, 151, 159, 160, 182, 185, 186
Purple-tailed Snake..... 14
Pyramid Lake 53, 65, 77
Pyrmont 106, 119

Q.

Quasqueton 99, 109, 139
Quebec.....178, 183, 185
Quin, H. E 136

R.

Rabeh Valley..... 132
Racine.....35, 79, 90, 99, 101, 116, 123, 129, 130, 134, 135, 147, 148, 150, 154, 155, 166, 174, 179, 184, 185
Garter Snake 17
River 115
River, Upper 182, 185
Ralston 47, 56, 57, 134, 165
Rana areolata areolata.....25, 178
areolata capito.....25, 178
catesbiana.....25, 184
clamitans.....25, 183
halecina berlandieri.....25, 180, 181
halecina halecina 25, 179, 180
montezumæ 25, 178
palustris.....25, 182
pretiosa 25, 186
septentrionalis.....25, 182
temporaria aurora.....25, 185
temporaria cantabrigensis...25, 186
temporaria silvatica.....25, 185
Rappahannock River 139
Red Bank Creek..... 180
Red-bellied Snake 13
Terrapin 6
Water Snake..... 19
Red-eye 12
Red Fork Pass..... 108
Red-headed Coluber 16
Red King Snake 14
Redmond's Pass 57
Ranche 58
Red Rattlesnake..... 12
River 52, 77, 80, 90, 93, 100, 111, 115, 117, 129, 140, 156, 165, 184

Page.
Red River Expedition 49
River of North 35, 149, 170, 175, 179, 181, 182, 185, 186
Red-spotted Chilopoma 17
Red Triton 22
Reese, C. W 84
Regal Horned Lizard 11
Ring-necked Snake..... 15
Republican Fork..... 43
River .27, 34, 35, 77, 89, 123, 169
Reticulated Lizard 9
Reuss, Dr. A. 85, 129, 130, 138, 139, 140, 147, 151
Reutersville 108, 110, 118
Reynolds, U. S. A., Capt 119
Reynolds, Dr 69
Reynolds, U. S. A., Lt 120
Reynolds & Hayden 68, 149
Rhees, W. W 83
Rhineüra floridana 7, 39
Rhinochilus leconteii 14, 88
Ribbon Snake 17
Riceboro' 132, 136, 143, 145, 147, 155, 156, 157, 158, 160, 164, 168, 171, 173, 174, 176, 178, 179, 184
Richard, J. H.....166, 182, 183
Richmond 84
Ricord's Frog..... 24
Ridgway, Robert.....28, 29, 30, 32, 33, 39, 52, 53, 77, 93, 101, 102, 109, 110, 120, 125, 126, 130, 135, 137, 142, 152
Ridgway's King Snake..... 15
Riggs, A. L.....126, 166
Rinconado..... 125
Ringed Snake 15
King Snake..... 14
Ringgold Barracks.....50, 54, 162, 164
Ring-necked Snake 15
Rio Blanco 31
Bravo 29
Colorado 68
Grande.....29, 35, 51, 82, 117
Grande, Lower ...38, 104, 106, 108, 141
Grande, West of 112
Miembres 122
Salado 131
San Pedro 77, 162
Seco 29
R * * *, Major..... 172
Ripley 150
Roan County 41, 175
Roanoke 103, 135
County..... 89
Robber Frog 24
Robinson, C., jr.....89, 135
Page.
Roberts, N. E..... 37
Roberts, W. F 111
Rochester 183
Rock Cañon 63, 69
Creek 59, 149, 154
Island 96, 101, 115, 138
Mary 66, 169
Rocky Dell Creek..... 75
Rocky Mountain Frog..... 25
Garter Snake 18
Mountains 120, 128
Mountain Sa'amander..... 21
Mountains, Northern..... 152
Rome County..... 43
Root River 124, 132, 161, 166, 179, 182
Racine.....144, 183
Rosy Boa..... 19
Rothrock, Dr. J. T.....150, 163, 170
Rough Soft-shelled Turtle..... 5
Round Lake..... 71
Rush Lake 77, 120
Russellville.....39, 59, 148, 167, 169, 179
Rutherford County 33, 134
Rusty Annides..... 22
Rutter, J. H.....49, 63, 64, 66, 68, 113, 179
Rutter, J. M.....149, 165
Ryder, J. A..... 44

S.

Sabinal 80
Sad-colored Annides 22
Sager, A..... 148
Saint Augustine 75, 176, 179
Catharine's 95, 130, 150, 151, 153, 154, 161, 186
Catharine's, Georgia..... 175
Charles, College ...42, 63, 71, 78, 80, 84, 115, 143, 173, 175, 179
George 65
James Parish 115, 130
Jerome's Creek..... 147
John's River.....27, 32, 39, 46, 81, 105, 139, 184
Joseph's Island 66, 81
Louis.....28, 33, 37, 41, 46, 59, 61, 83, 89, 94, 110, 115, 123, 130, 135, 136, 144, 148, 152, 166, 169, 175, 179, 180, 184, 186
Academy 83
Lucas Alligator Lizard..... 11
Bull Snake..... 16
Coach-whip Snake.... 17
Gecko..... 12
Phimothyra..... 15
Queen Snake..... 18

Page.
Saint Lucas Rattlesnake..... 12
Water Snake..... 18
Martin's Island..... 106
Mary's County..... 44
Simon's Island.....74, 79, 100, 102, 103, 108, 124, 178
Thomas..... 69
Salado and Camargo River, Between 164
River..... 180
Valley..... 38
Salem.....39, 60, 108, 124, 134, 158, 159, 166, 169, 175, 180, 183
Salem Creek..... 83
Salmon Triton..... 22
Salt Creek..... 180
Lake...56, 59, 60, 62, 105, 112, 119, 125
Valley.....65, 109, 110, 181
Plains..... 165
Salt-water Terrapin..... 6
Samuels, E.....47, 60, 87, 95, 110, 112, 125, 150, 153, 158, 171, 182
San Antonio....30, 37, 43, 44, 49, 50, 63, 64, 67, 75, 77, 100, 106, 113, 118, 173, 180
Antonio, near..... 118
Bernardino..... 105
Bois Creek..... 78
Carlos..... 56
Diego.....36, 39, 46, 47, 58, 60, 63, 70, 117, 162, 172, 184
Sand Hills.....68, 94, 141, 165, 181
Sandusky..... 33
Sand Viper..... 19
Sandy Springs..... 91, 92
San Felipe..... 81
Sanford..... 27, 75
Sanford, C..... 114
San Francisco.....36, 39, 47, 48, 59, 70, 75, 76, 77, 92, 107, 109, 112, 122, 124, 128, 153, 158, 160
Mountains.....119, 178
Ildefonso.....44, 49, 52, 56, 64, 68, 117, 119, 122, 141
Juan River.....61, 119, 180
Jose..... 87, 95
Luis..... 43
Luis Valley..... 119
Marthe..... 86
Mateo..... 77
Pedro.....29, 31, 40, 50, 56, 58, 61, 70, 76, 115, 124, 138, 162, 168
and Comanche, between. 142
Gila River..... 180
River..... 48
to Rio Grande..... 81
Quentin..... 160

Page.
Santa Barbara.....48, 56, 60, 61, 70, 76, 92, 106, 107, 113, 153, 162, 171
Catalina Island..... 76
Caterina.....52, 58, 101
Cruz.....75, 172
Island.....48, 56, 171
Fé.....43, 49, 52, 53, 61, 68, 69, 140, 141, 150, 172, 175, 180
Creek..... 149
Rita del Soto..... 105
Mission..... 49, 58
Mountains..... 63
Santee River, Southern..... 145
Sargent, J. B.....96, 105, 138
Sartorius, Dr..... 98
Sauromalus ater..... 9, 51
Savannah.....79, 95, 100, 114
Cricket..... 23
Savina..... 130
Sayer, C..... 154
Say's King Snake..... 15
Pine Snake..... 16
Tessellated Lizard..... 8
Scaly Alligator Lizard..... 10
Garter Snake..... 18
Lizard..... 21
Scaphiopus conchi.....25, 177
holbrooki.....25, 178
varius rectifrenis.....25, 193
varius varius.....26, 177
Scarborough..... 185
Scarborough, J. N. B.....33, 41, 59, 60, 83, 123, 134, 135, 155, 156, 157, 158, 159, 160, 161, 175
Scarlet King Snake..... 14
Snake..... 14
Sceloporus biseriatus.....10, 59, 189
clarki clarki..... 11, 63
clarki zosteromus...11, 64, 189
consobrinus..... 10, 61
consobrinus gratiosus. 10, 62, 189
couchi.....10, 58, 189
floridanus.....10, 62, 189
jarrovi..... 10, 57
marmoratus.....10, 58, 189
ornatus.....10, 57, 189
poinsetti..... 10, 58
rufidorsum.....11, 64
scalaris.....10, 62, 189
smaragdinus..... 10, 62
spinosus..... 10, 63
torquatus..... 10, 58
tristichus.....10, 62, 189
undulatus occidentalis.. 10, 61
undulatus thayeri..... 10, 60

Page.
Sceloporus undulatus undulatus.10, 59 60,
utiformis 10, 62, 189
Schenectady 36
Scheurmann, C. W 30, 44, 63, 67, 118
Schott, A 29, 31, 54, 63, 73, 74,
75, 82, 84, 86, 87, 104, 108, 112, 113, 167
Schott's Lizard 8
Uta 10
Schneck, J 30, 33, 34, 37
Schu acher, P 76, 107, 128
Schumaker, W. L 92
"Scorpion" 8
Scorpion 11
Scutulated Rattlesnake 12
Seagrave, O. B 90
Seckels, William 60, 65, 162
Selkirk Settlement...122, 163, 170, 174, 185
Semer, Dr 89
Seneca Lake 184
Sennett, Geo. B 67, 115, 118, 142
Senterfitt 93, 106
Sercomb 84
Seven-lined Lizard 8
Shad Frog 25
Shaw 184
Shawnee Mission 93, 184
Village 184
Shelby County 164
Sheldon, D. S 105
Shedd, W. H 62, 122, 180
Shepherd, J. R 39, 123
Shepherd, R. T 89, 91, 95,
99, 109, 123, 129, 130, 131
Shielded Uta 9
Shoalwater Bay.....122, 125, 163, 171, 178
Shoemaker, Geo 132, 134, 175
Shoemaker, Chas 89, 135
Short-lined Skink 7
Shoshone Lake 165
Shumard, Dr. B. S 41, 42, 46, 63, 66,
74, 75, 79, 83, 89, 90, 91, 101, 115,
129, 130, 138, 144, 145, 148, 152,
161, 162, 166, 169, 173, 179, 184
Sibley Lake 184
Sibon annulatum septentrionale... 15, 98
"Side-winder" 12
Sierra de la Union 48
Sun 115
Verde 74
Simahmoo Bay 144, 163
Simpson, U. S. A., Capt. J. H 49, 74, 76,
79, 126, 127, 129, 132, 165
Siren 20
lacertina 20, 143
Sitgreaves, U. S. A., Capt. L.....53, 136

Page.
Six-lined Lizard 8
"Skilpot" 6
Skilton, Dr. A. J 48, 95
Skilton's Skink 8
Skink-tailed Lizard 9
Skul, F. D 136
Slender Lizard 21
Salamander 21
"Slider" 6
Slimy Lizard 21
Small Spaded Toad 23
Smilisca baudini 24, 176, 193
Smith, A. W 135
Smith County 161
Smith, E. K 179
Smith, E. R 176
Smooth-back Cyclura 11
Snake Valley 77, 119
Snapping Turtle 5
Snell, J. C. H 75
Snyder, J. A 52
Society Hill 43, 102, 129
Soft-shelled Turtle 5
Sombre Alligator Lizard 10
Somers, Wm 43, 44, 52, 56, 118
Somerville 36, 72, 84,
91, 95, 103, 114, 122, 129, 139
Sommer, G. H 48
Sonoma County 171
Sonora 36, 47, 49,
52, 53, 54, 58, 63, 68, 70, 78, 82, 87,
93, 95, 97, 98, 118, 139, 162, 175, 177
Ground Rattlesnake 12
Harlequin Snake 13
Hyla 24
King Snake 14
Ring Snake 14
Ringed Snake 13
Rush Lake 105
semiannulata 14, 87, 190
Spade Foot 25
Tabac 75
Toad 22
Sonoran Skink 8
South Carolina 60, 81, 88, 155, 174
Southeastern Arizona.....63, 66, 98, 108
Southern Arizona..56, 61, 78, 92, 108, 113, 141
California 44, 53, 56,
60, 63, 106, 117, 121, 171, 175, 186
Ground Rattlesnake 12
Mud Turtle 6
Oregon 126
Santee River 145
States 60, 100,
115, 130, 131, 132, 175

Page.
Southern Utah....52, 53, 56, 73
Southfield.... 60
South Fork....169, 181
Grand River.... 169
Southampton County.... 60, 92
South Park....150, 163
Pass.... 179
Pass W. R. Expedition.... 93
Spea bombifrons....24, 177
hammondi....24, 177, 193
multiplicata....24, 177, 193
stagnalis....25, 177
Spelerpes bilineatus....22, 156
guttolineatus....22, 157
longicaudus....22, 156
multiplicatus....22, 156, 193
ruber montanus....22, 158
ruber ruber....22, 157
ruber sticticeps....22, 158, 193
Sphærodactylus notatus....11, 72, 189
Spillman.... 145
Spilotes couperi....16, 104
erebennus....16, 104
Spiny Alligator Lizard.... 10
Spiny-back Cyclura.... 11
Spiny-breasted Horned Lizard.... 11
Spiny soft-shelled Turtle.... 5
Spotted Coluber.... 16
Rattlesnake.... 12
Salamander.... 20
Spotted-tail Dragon.... 9
Spotted Toad.... 22
Turtle.... 7
Spreading Adder.... 19
Sprinkled Salamander.... 20
Spring Frog.... 25
Sprout River.... 102
Squirrel Hyla.... 24
Stabler, J. P.... 91, 92
Stagg.... 166
Stansbury, U. S. A., Capt. H.... 56, 65
Stansbury's Uta.... 10
Statesville....109, 130, 138, 140
Stauffer, J....150, 153, 155
Steele, W. N.... 91
Stenostoma dulce.... 20
humile.... 20
Steptoe Valley.... 77
Stereochilus marginatum....22, 192
Stevens, D.... 154
Stevens, Dr....146, 147, 157, 159
Stevens, George....128, 139
Stevens, Governor....47, 61, 66, 70, 76, 109, 113, 117, 124, 125, 127, 170
Stevenson, F. V.... 78, 81
Page.
Stewart, W. M....41, 59, 71, 88, 125, 134, 175
Stimpson, Dr. Wm....125, 130, 152, 154, 160, 169
Stink-pot.... 5
Stone, L.... 47
Storeria dekayi....18, 130
occipitomaculata....18, 129
Storer's Snake.... 18
Straw Snake.... 13
Streets, U. S. N., Dr. T. H....38, 51, 57, 68, 73, 75, 82, 106, 171
Striated Siren.... 20
Turtle.... 7
Striped Snake.... 17
Subec Pond.... 179
Suckley, U. S. A., Dr. Geo....36, 61, 68, 76, 96, 101, 105, 106, 119, 120, 123, 127, 132, 138, 140, 141, 142, 151, 160, 167, 171, 172, 179, 180, 181
Sudworth, G. B.... 131
Sumichrast, Prof. F....46, 128, 129, 130
Sumichrast's Garter Snake.... 18
Summerville....81, 175
Swamp Frog.... 25
Swan, J. G.... 151
Sweeny....147, 148
Sweetwater.... 190
Swift Garter Snake.... 17
Swift, U. S. A., Dr. E....67, 88, 131, 149
Sydney....30, 69, 77, 149
Syrrhopus marnocki....24, 193

T.

Tadpole Salamander.... 20
Tahat Plains.... 126
Tahoe Plain.... 47
Tallahassee....59, 103
Tamaulipas....40, 149
Tampa Bay.... 133
Tangipahoa River....59, 175
Tantilla coronata.... 13, 85
gracilis.... 13, 84
hallowelli....13, 84, 190
nigriceps.... 13, 85
planiceps....13, 190
Taos....61, 62, 68, 118, 119, 179, 180, 181
Tarboro'....31, 32, 100, 139, 144, 145, 174, 179, 184
Tawny Harlequin Snake.... 13
Taylor.... 63
Taylor, A. S....36, 39, 158
Taylor, Dr. A. W.... 66
Taylor, Dr. L. M.... 88
Taylor, William J....44, 71, 81, 84, 92, 135, 138

Page.
Tennessee 114, 159, 180
Hellbender 20
Tessellated Lizard 8
Tiger Lizard 8
Texas 40, 44, 63, 66, 67, 76, 81, 115, 138, 142, 147, 168
Coach-whip Snake 17
Frog 25
Harlequin Snake 13
Moccasin 12
Northern 59, 177
Northern Boundary of 40, 67
Rena 21
Ring-necked Snake 15
Salamander 21
Spotted Lizard 9
Toad 23
Triton 22
Western 50, 52, 67
Thalassochelys 26
caretta 5, 28
kempi 5, 187
Thayer's Alligator Lizard 10
Thickstun, J. F 124, 146, 166, 174, 184
Thomas, U. S. A., Maj. G. H 54, 112
Three-toed Box Tortoise 7
Thunder and Lightning Snake 14
Snake 14
Worm 7
Three-fingered Siren 20
Three-lined Boa 19
Tiburon Island 82
Tickfaw 169, 179
Tierra Amarilla 56, 110
Tiger Rattlesnake 12
Salamander 20
Tioga County 99, 108, 114, 125, 161
Toad 23
Tocoi 71
Toledo 114, 144, 182, 185
Tomales Bay 125
Toner, Dr. J. M 27
Townsend, J. K 50, 56, 64
Townsend, J. R 90
Treat, Mrs. Mary 138
Tree Frog 23, 24
Trembly, Dr. J. B 114, 144, 182, 185
Trenton 36, 157
Trimorphodon lyrophanes 15, 98
Trinity River, Headwaters of ..61, 95, 181
Triton 22
Triunfo 73
Troost's Moccasin 13
Terrapin 6
Tropidoclonium kirtlandi 18, 131
Page.
Tropidoclonium lineatum 18, 131
storerioides 18, 191
Tropidonotus clarki 18, 131
compressicaudus.19, 133, 191
compsolæmus 19, 191
cyclopium 19, 137
fasciatus 19, 133, 134
grahami 18, 131
leberis 18, 132
rigidus 18, 132
rhombifer 19, 137
sipedon couchi 19, 135
sipedon erythrogaster.19, 136
sipedon sipedon ..19, 134, 135
sipedon woodhouseii.19, 135
taxispilotus 19, 136
ustus 19, 133, 191
validus celæno 18, 133
validus tephropleura. 18, 133, 191
validus validus 18, 132
Trowbridge, U. S. A., Lt. W. P 70, 109, 119, 122, 142, 152, 158, 160, 171, 185
True, F. W 34, 36
Tucson 31, 117
Tunnison, Miss Helen 30, 78, 103, 135, 166, 175, 178, 182, 184
Turnbull County 79
Turner, L. M 30, 33, 34, 35, 39, 42, 46, 82, 83, 84, 89, 93, 94, 100, 102, 103, 115, 116, 123, 129, 130, 136, 137, 138, 140, 144, 147, 152, 159, 161
Turner, Mrs. M. E 33
Turner, Samuel 139, 144, 152
Turpe, Albert 143
Turtle Mountain 117
Tuscumbia 93, 144
Twin Lakes 119
Twining's Garter Snake 17
Two-banded Ground Snake 7
Two-lined Lizard 10
Tyree Springs 60, 83, 93, 95, 108, 110, 123, 130, 134, 138, 144, 146, 155, 158, 166, 182, 184

U.

Uma notata 9, 51, 189
Unarmed Trionyx 5
Union County 79, 183
Missouri 166
Tennessee 57, 60, 83, 123, 157, 158
Wisconsin 175
Upper California Region 166
Wisconsin 129

Page.
Upshur County 84
Upson 143
Utah 31, 40, 49, 56, 62, 65, 69, 77, 79, 87, 96, 102, 163, 164, 165, 167, 175, 177, 181, 182
Lake 149
Northern 69
Middle 112
Southern 52, 53, 56, 73
Uta Alligator Lizard 10
elegans 10, 55
graciosa 9, 54
nigricauda 10, 55
ornata 10, 56
schotti 10, 55
stansburiana 10, 56, 57
thalassina 9, 54, 189

V.

Valeria's Snake 13
Vallicita 142
Vancouver Island Lizard 21
Vancouver's Salamander 21
Van Vliet, U. S. A., Capt. S 118, 180
Van Vliet's Frog 24
Varden, J 147
Variegated Gecko 11
Vaughan, Col. J. D 106, 126
Velie, J. W 37
Vera Cruz, Hills west of 98
Verdigris River 52, 79, 115, 169
Vermont 109
Verticaria hyperythra 8, 45
Victoria 71
Vineland 138
Virgen River 56
Virginia 31, 74, 80, 110, 114, 134, 135, 138, 147, 148, 157, 161
City 57, 61, 65, 162
elegans 13, 84
valeriæ 13, 83
Virginia's Snake 13
Viper 13
Vollum, U. S. A., Dr. E. P 76, 163
Volusia 82

W.

Walker's Basin 112
Walker, S. T 27, 35, 38, 39, 44, 46, 60, 72, 78, 79, 90, 95, 103, 104, 109, 111, 114, 115, 1 3, 133, 138, 139
Wailes, B. L. C 35, 37, 41, 108, 134, 135, 155, 159, 167, 168, 173, 175, 182
Wandering Garter Snake 17
Ward, H. A 27

Page.
Warner, Dr. J. R 68, 126
Warren 83, 103
Warren, U. S. A., Lieut. G 125, 126, 127, 149, 169, 181
Warner, W 79
Washington County 35, 167, 168, 173, 180, 182
Washington, D. C 32, 34, 36, 41, 59, 67, 80, 83, 89, 90, 91, 95, 109, 122, 124, 126, 130, 132, 134, 135, 138, 154, 157, 161, 166, 169, 174, 175, 179, 183, 185
Washington Territory 37
Water Moccasin 12, 19
Snake 19
Warren's Skink 8
Warty Gecko 11
Waukegan 28
Waukesha 183
Weathersfield 83, 174, 183
Webb, Dr. Thos 49, 50, 58, 70, 75, 82, 85, 117, 121, 122, 128, 132, 148, 162, 164, 177
Webster City.29, 30, 34, 96, 99, 101, 148, 179
Welsh, David 133
Welsher, H. W ...32, 37, 72, 80, 85, 100, 110, 130, 133, 135, 136, 138, 143, 144, 157, 167
Welsher & Milner 159
Welsher & Quin 43, 60
Welthy River 185
Wemas River 107
Western Alligator Lizard 10
Bull Snake 16
Cricket 23
Gopher 7
Ground Snake 13
Hog-nose Snake 19
Missouri 166
Oregon 127, 128
Pennsylvania 150, 156
Skink 7
Spotted Lizard 9
Toad 23
Texas 50, 52, 67
Wood Frog 25
Westfield Falls 136
West Fork New Creek 106
Philadelphia 175, 182
Point 161
Westport 99, 126, 129, 134, 154, 156, 159, 161, 174, 182, 183, 184, 185
Weston, P. J. C....85, 110, 111, 132, 136, 164
Weyrick, Dr 110, 140
Wheatland 30, 32, 39, 83, 93, 101, 102, 109, 130, 133, 135, 137, 147
Wheaton 135
Wheaton, Dr. J. M 123

Page.
Wheeler, Dr 89, 90
Wheelock 39, 103, 111, 115, 140
Whewakan Valley 64
Whipple, U. S. A., Lt. A. W .. 43, 52, 56, 64, 66, 68, 69, 75, 85, 96, 101, 106, 112, 134, 181
White Mountains, Arizona 68, 76
River Cañon 57, 68, 69, 91, 96, 98, 107, 121, 141
White-spotted Skink 8
Whitfield 147
County 102
Whittlesey, Major 144
Wilcox, U. S. A., Dr. J. E 52
Willamette Valley 60, 142
Williams, Prof. 156, 157, 159, 161, 183
Williamson, U. S. A., Lt. R. S .. 53, 54, 63, 92, 108, 109, 119, 122, 123, 125, 126, 128, 142
Willow Creek 183
Wilmington 27, 32, 46, 59, 74, 78, 79, 80, 84, 85, 95, 100, 133, 134, 138, 140, 145
Wilson, William M 60
Wilton Springs 106, 119
Winchell, Prof. A 41, 43, 59, 71, 122, 125, 140, 164, 166, 174, 183
Windham, Dr. S. W 69
Wisconsin 71, 123, 126, 180
Eastern 99
Northeast 134
Upper 129
Wislizenius' Lizard 9
Wittich, Willis 151
Wittfield, William 44, 46, 60, 72, 81, 90, 100, 102, 103, 109, 114, 134, 136, 173
Wood Frog 25
Wood, J. W 46, 129
Wood's Holl 91, 114, 125, 154, 167
Wood, W. S 34, 35, 69, 77, 80, 99, 108, 116, 120, 126, 127, 141, 165, 166, 167, 169, 175, 180, 181, 182, 184
Wood, W. T 119
Woodhouse, Dr. S. W . 43, 47, 50, 51, 52, 63, 67, 69, 75, 93, 137, 138, 149, 162, 166, 178
Woodhouse's Water Snake 19
Woodworth, Dr. J. N 59, 175
Woodworth, O. H 66
Wooster, A. F 154, 161, 167
Wormley, Dr 144
Worm Snake 13
Wright, C. 28, 59, 72, 83, 114, 174, 183
Wright, H. B 146

Page.
Wurdemann, G 29, 30, 31, 33, 34, 38, 39, 41, 43, 46, 63, 66, 71, 72, 91, 98, 103, 115, 118, 134, 138, 164, 168, 178
Wyoming 117, 119

X.

Xalapa 46, 69, 81, 93, 115, 130
Xantus, J 28, 36, 42, 45, 47, 49, 54, 55, 60, 62, 64, 70, 71, 73, 74, 75, 76, 86, 88, 92, 97, 98, 107, 113, 117, 121, 132, 133, 142, 154, 162, 172, 177
Xantus's Gecko 12
Lizard 8
Snake 15
Xantusia vigilis 8, 42, 188
Xerobates agassizi 7, 38
berlandieri 7, 38
polyphemus 7, 38

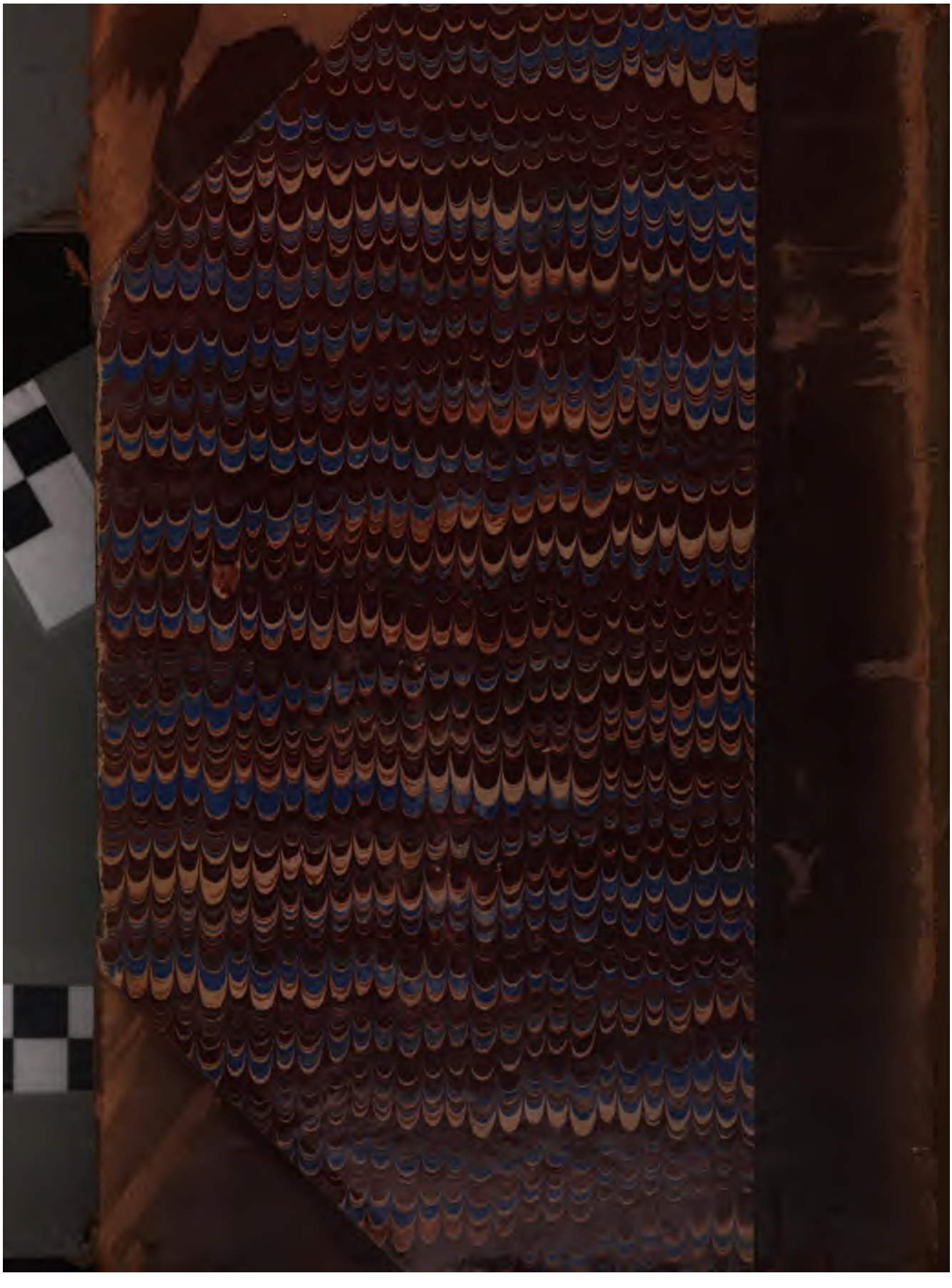
Y.

Yampai Valley 51
Yarrow & Aiken 106
Yarrow, Dr. H. C .. 27, 28, 31, 40, 43, 44, 46, 48, 49, 52, 53, 56, 57, 59, 60, 61, 62, 63, 64, 65, 68, 69, 73, 77, 96, 100, 106, 107, 110, 112, 118, 119, 120, 122, 134, 140, 163, 164, 165, 166, 167, 170, 175, 177, 179, 180, 181, 182
Yarrow, John 49, 68, 165
Yarrow's Dromicus 15
Yarrow's Lizard 10
Yellow-bellied Black Snake 16
Yellow-bellied Terrapin 6
Yellow Coach-whip Snake 17
Creek 129, 185
Mud Turtle 6
Salamander 20
Yellow-spotted Lizard 21
Yellowstone 61, 77, 127, 167, 181
and Missouri River .. 106, 122, 128
Camp Thomas 11, 177
Fort Lookout 77, 89
River 33, 35, 68, 77, 106, 123, 127, 139, 141, 165, 181, 184
River, mouth of 179
Yellow Water Snake 19
York River 34
Yuba 171

Z.

Zuñi 66
Zuñi River 69

HUNNIARY COLLECTION

Stanford University Library
Stanford, California

In order that others may use this book, please return it as soon as possible, but not later than the date due.